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ABSTRACT

Measurements of materials and library operations were carried out in five public libraries and an observation study of staff work was conducted in the Hawaii State Library. The goals of this phase of the larger state study included testing and modification of measures to ensure their applicability to public libraries in the state, and the development of findings that could be used for recommending changes in the library system. Measurements were reported in four general operations categories: (1) making materials available to users, (2) making library facilities and equipment available to users, (3) making staff available to users and other personnel considerations, and (4) managing library resources. (CMV)

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ANALYSIS OF SERVICE AND DEVELOPMENT OF PERFORMANCE MEASUREMENTS FOR STATE OF HAWAII LIBRARIES

Volume IV

Results of Measurements Conducted in Selected Public Libraries in Hawaii

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TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC) AND USERS OF THE ERIC SYSTEM."

IR006061

Other Volumes In This Study Include:

Volume I: Summary Report.
Volume II: A Survey of Residents in Relation to Public Library Use.
Volume III: Results of the Library Staff and Government Agency Surveys.
Volume V: Performance Measurements System Manual for State of Hawaii Libraries.

SURVEY &
MARKETING
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December 2, 1977

Mr. Charles G. Clark
Superintendent of Education
Department of Education
Queen Liliuokalani Building
1390 Miller Street
Honolulu, Hawaii 96813

Dear Mr. Clark:

We are pleased to present AN ANALYSIS OF SERVICE AND DEVELOPMENT OF PERFORMANCE MEASUREMENTS FOR STATE OF HAWAII LIBRARIES. Our five-volume study presents findings on the library needs of Hawaii's residents, current library performance, recommendations for improving operations and services, a system for continuous monitoring of library performance, and a systems manual which details how performance information is to be gathered and analyzed.

AN ANALYSIS OF SERVICE AND DEVELOPMENT OF PERFORMANCE MEASUREMENTS FOR STATE OF HAWAII LIBRARIES has been designed to be a working tool to serve the Department and the State library system. We have developed a versatile and comprehensive set of performance measurements which when implemented will place Hawaii in the forefront of the nation's library systems.

Our work on this study has been a rewarding experience for our project team, and we would like to thank you for the assistance and support of the Department of Education in this effort.

Sincerely,

Lee A. Weigle

Lee A. Weigle
Executive Director

ACKNOWLEDGEMENTS

During the course of this study, literally dozens of people have given us assistance at one point or another. We would like to take this opportunity to express our thanks to all of them.

We feel particularly indebted to Masae Gotanda, Head of Research and Evaluation for the Hawaii State library system who was the tireless project manager responsible for the overall direction that brought this project to completion. We would also like to thank May C. Chun, former State Librarian, whose professional support and personal graciousness made our job a pleasure as well as a challenge.

In addition, we would like to acknowledge other key personnel in the library system who met with us frequently and provided us with their review and suggestions. They include Ruth Itamura, State Librarian; Oi Yung Chow, Librarian, Hawaii State Library; Seichi Toda, Director, Administrative Services Section; and Edna Tsusaki, Librarian, East Oahu Library District. Dr. Miles M. Jackson of the University of Hawaii Graduate School of Library Studies lent us his valuable experience and expertise throughout the course of the project. A special note of gratitude is also due Ernest R. De Prospo, Professor, Graduate School of Library Science, Rutgers University, New Brunswick, New Jersey for giving us his cooperation, consultation and encouragement throughout the study and especially during his visit to Hawaii.

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GENERAL INTRODUCTION

In the fall of 1976, the library system of the State of Hawaii commissioned a study to explore the ways in which the performance of Hawaii public libraries might be measured and assessed in relation to community needs, available resources, appropriate standards, and library objectives. Generally the study was to:

- Describe and assess the library needs of residents and relevant institutions;
- Analyze the present reporting system, and develop appropriate measures of public library performance;
- Conduct tests of proposed library measurements in five selected Hawaii public libraries;
- Develop a system for measuring the performance of State of Hawaii public libraries in relation to library system objectives and standards, and specify procedures for collecting and analyzing performance data.

The firms of Survey and Marketing Services, Inc. and its subcontractor, Henry A. Alexander and Company, Inc., were selected for the study. Dr. Miles M. Jackson of the University of Hawaii Graduate School of Library Studies was retained as a consultant by the contractor. The Hawaii State library system formed a project management team to work with the consultants. The project management team included the State Librarian, the Director of Public Library Services, selected section heads and representatives from the consultants. The head of the Research and Evaluation Services for the library system served as project manager. The project team met periodically during the design and execution phases of the study to review progress and provide feedback.

The study involved four separate data and information collection tasks: A survey of the adult residential population in the State; a survey of public library personnel; a survey of agencies and institutions served by the public library system; and the measurement of materials, facilities used, and staff activities in selected Hawaii public libraries.

User/Nonuser Survey:

The survey of adult residents in the State was conducted November 19 through December 9, 1976. A total of 1,000 adults were interviewed by telephone throughout the State. The following numbers were interviewed on each island in the State in proportion to that island's share of the State population: Oahu, 815; Hawaii, 86; Kauai, 37; Maui, 54; Molokai, 6; and Lanai, 2. Residential telephone numbers for the sample were obtained through a Survey and Marketing Services' computer program which randomly generates telephone numbers. The survey covered the following topics: Use of the public library; patterns of library use; reasons for non-use; characteristics of library users and non-users; attitudes toward the library; and demand for library materials and services.

Library Staff Survey:

The survey of State public library personnel involved all employees except janitorial or maintenance workers. A total of 425 questionnaires were distributed through the library system, and 297 (70%) were returned to Survey and Marketing Services for data processing and analysis. Topics covered included opinions about library system performance; materials, service and program needs of the library; work conditions and training needs; and problems facing the library system.

Government Agency Survey:

Six government agencies and institutions with actual and potential needs for library system services were selected for study. In-depth, semi-structured interviews were conducted with the management of each institution. The framework for these interviews focused attention on the role of the State library system in relation to institutional needs.

Library Measurements:

Measurements of materials and library use were carried out in five selected public libraries: Hawaii State Library, Kaimuki Regional Library, Hilo Regional Library, Liliha Library and Kahuku Community/School Library. In addition, an observation study of staff work was conducted in the Hawaii State Library. The measures and data collection procedures used, with the exception of the staff work observation study, were based on the performance measurements manual developed by Ellen Altman and others.[1] The purposes of the library measurements phase of the study included testing and modification of measures to ensure their applicability to Hawaii public libraries, and development of findings about Hawaii libraries that could be used for recommending changes in the library system.

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[1] Ellen Altman, Ernest R. De Prospo, Philip M. Clark, and Ellen Conner Clark. A Data Gathering and Instructional Manual for Performance Measures in Public Libraries. Celadon Press: Chicago, 1976.

Other reports completed as part of this study provide detailed information about study findings, the methodologies used, and the data collection and analysis procedures developed as a part of the recommended performance measurement system.

Volume I: Summary Report, Volume II: A Survey of Residents in Relation to Public Library Use, and Volume III: Results of the Library Staff and Government Agency Surveys provide details of the findings and methodologies for the respective surveys and measurements. Volume V: Performance Measurements System Manual for State of Hawaii Libraries provides detailed instructions for libraries for the collection and analysis of performance data.

APPROACH AND METHODOLOGY

The following presentation covers the results of the measurements, observations and findings related to three principal tasks of the contract:

- Conduct a manpower survey and make recommendations for manpower distribution within present authorized positions;
- Propose performance, services, hours, facilities and use standards based on data collected, manpower available, and resources available;
- Recommend alternative methods and procedures where appropriate.

These subjects are discussed in four sections:

I Making Materials Available to Users;
II Making Library Facilities and Equipment Available to Users;
III Making Staff Available to Users and Other Personnel Considerations;
IV Principles and Practices in Managing State Library Resources.

While these subject areas do not cover all aspects of a library, they constitute the most critical considerations in the analysis of the performance of libraries, and must be considered if a library system is to meet its patrons' needs successfully.

Most of the findings and recommendations in this report volume are based on quantitative measurements conducted at selected libraries within the Hawaii State system. However, in order to achieve the objectives of this investigation, we have supplemented quantitative research with other methods of observation and analysis. As the foremost investigators in the realm of library performance assessment have noted, ". . .the librarian must be aware of the limitations of any given measurement process" and ". . .measurement in general is a process, a complex of tools, with some further goal in mind."[1] Therefore, our findings and recommendations also utilize observations and suggested corrective actions which spring from established management principles, especially in the area of manpower analysis.

Five libraries were selected by the management team for study as representative of the range of public libraries in Hawaii:

- Hawaii State Library - a library which serves as both the resource center for the State library system and the popular library for downtown Honolulu;
- Kaimuki Regional Library - a regional library located in an urban business and residential setting in Honolulu on the island of Oahu;
- Hawaii (island) Library - a regional library located in the city of Hilo on the island of Hawaii;
- Liliha Library - a community library located in a lower income neighborhood in Honolulu on the island of Oahu;
- Kahuku Community/School Library - a combination of a community and school library located in a rural area on the North Shore of the island of Oahu.

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[1] Ellen Altman, Ernest R. De Prospo, Philip M. Clark and Ellen Connor Clark. *A Data Gathering and Instructional Manual for Performance Measures in Public Libraries*. Celadon Press: Chicago, 1976.

Data were collected during thirteen library days in late November and early December, 1976. Six of those days were spent at the Hawaii State Library, two days were spent at each of Kaimuki, Hilo, and Liliha libraries and one day was spent at the Kahuku library. Although most measurements were taken in all libraries, the tables and exhibits presented in this analysis relate primarily to the State Library because there were insufficient observations at the other libraries for statistical significance in some instances (especially measurements related to manpower analyses). However, taking these measurements in these other libraries provided the opportunity for testing and modifying these measures to ensure their applicability to the State library system as a whole for the purpose of measuring the performance of public libraries.

Data from more than one library are included in some tables and exhibits for convenience and ease in presentation. However, comparison of the performance of different libraries is appropriate only where goals are similar and resources allocated to the achievement of these goals are comparable.

Generally, our findings and recommendations are based on these measurements or on other information collected during our study. Some of the recommendations arise from our general understanding of the situation, our experience, or the results of other studies. All recommendations are numbered consecutively through the report.

I. MAKING MATERIALS AVAILABLE TO USERS

The primary function of the public library is to make available to the public materials which contain recorded documents of human experience and research. Without sufficient materials of satisfactory quality, libraries would serve no real purpose aside from providing facilities for meetings and some instruction.

A. Circulating Collection

The circulating collection at the five libraries was measured according to the performance measurement system developed by Ernest De Prospo and his associates.[1]

1. Availability of Recently-Published Books for Circulation

An important measure of books developed by De Prospo and his associates is the measure of a user's chance of obtaining a recently-published book from a given library. Steps involved in this measurement included:

(a) Drawing a random sample of approximately 100 titles from each of the last five years from a record of all books published in English in America.

- Five-hundred ten (510) titles were selected from the American Book Publishing Record and were recorded on index cards.

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[1] Ellen Altman, Ernest R. DeProspo, Philip M. Clark and Ellen Connor Clark. A Data Gathering and Instructional Manual for Performance Measures in Public Libraries. Celadon Press: Chicago, 1976.

(b) Looking through the shelf lists of the libraries to determine how many were owned by that library.

- Letter(s) denoting each library where the titles were found in the shelf lists were recorded on the index cards.

(c) Going to the stacks in search of the titles owned. The letter(s) on the index cards for each library were circled where the titles were found.

(d) Counting the number of titles owned, the titles available on the shelves and recording these numbers first by year and then in summary form.

The results of this analysis are shown in Table 1 below -- "State of Hawaii Libraries BPR Probability Sample."

TABLE 1

Name of Library	Total Owned	Titles Owned By Year					Titles Available	Probability of Ownership	Probability of Availiabilty	Success Score
		71	72	73	74	75				
State	61	8	13	13	13	14	31	.120	0.508	.061
Kaimuki	23	4	5	6	4	4	14	.045	0.609	.027
Hilo	35	9	5	7	9	5	27	.069	0.771	.053
Liliha	10	3	2	3	1	1	1	.020	0.100	.002
Kahuku	8	5	NC	NC	3	NC	4	.016	0.500	.008
5-YEAR TOTAL FOR SYSTEM	137	29	25	29	30	24	77	.061	0.562	.034

*Number in sample 510 except for Kahuku where 202 were sampled.
NC = Not Counted at Kahuku
Available = On Shelf
Ownership = In Card Catalog
Success Score = Probability of Ownership x Probability of Availability

State of Hawaii Libraries

"BPR" PROBABILITY SAMPLE

Random Sample of American Book Publishing Record*

For 510 Books Published from 1971 to 1975

The "success scores" ranged from .061 at the Hawaii State Library (about a 6.1% chance of obtaining a recent book) to .002 at Liliha Library (about a 0.2% chance of obtaining a recent book).

Some "success scores" which we calculated for other local libraries are shown in Table 2.

TABLE 2

Name of Library	Probability of Ownership	Probability of Availability	Success Score
Hamilton Library University of Hawaii	.416	.514	.225
Hawaii Medical Library	.208	.282	.170

"BPR" PROBABILITY SAMPLE AT OTHER LOCAL LIBRARIES

Average for Books Published from 1971 to 1975

In the case of the Hawaii Medical Library, the analysis showed that its success score improved from an average of .120 in the period from 1971 to 1973 to .282 in 1975. This increase resulted from increased funds provided by the University of Hawaii Medical School and by the physicians through the Honolulu County Medical Association, after the University of Hawaii Medical School became a four year instead of a two year school. Measurements based on the same book sample reveal that the Houston Academy of Medicine-Texas Medical Center Library increased their success score from .391 to .589 between 1971 and 1975.

The same 510 titles that were used in the State of Hawaii Library measurements were used at Hamilton Library. For the Hawaii Medical Library, a separate sample of approximately 500 titles was drawn from Dewey decimal class 610 through class 619 (books pertaining to medicine).

Table 3 compares results for the Hawaii State Library with results for public libraries elsewhere. The libraries measured in the P.L.A. (Public Library Association) studies are more comparable in size to the Hawaii State Library than the libraries measured in the Illinois and New Jersey state surveys, which included many libraries smaller than the Hawaii State Library.

TABLE 3

		annual expenditures ($000)	no. of libraries measured	summary measure	probability of ownership	probability of availability	"success score"*
Hawaii State Library[1]		1,250	1	---	.120	.508	.061
P.L.A. Studies:[2]	Phase I	250-750	3	average	.236	.684	.160
	Phase II	750-3,500	24	median	.230	.720	.166
Illinois (Statewide)[3]		300 or more	28	average	.150	.690	.104
New Jersey[3]		"main" libraries	N.A.	median	.107	.629	.070

Note: In that the range of sized of Libraries in Illinois and New Jersey may include many libraries much smaller than Hawaii State Library, figures from these states are not directly comparable to Hawaii State Library data.

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*Probability of ownership times probability of availability

[1] From library measurements conducted for this study

[2] From Ernest R. De Prospo, Ellen Altman, and Kenneth E. Beasley, Performance Measures for Public Libraries (Public Library Association, American Library Association, 1973)

[3] From unpublished studies made available by Dr. Ernest De Prospo

AVAILABILITY OF RECENTLY PUBLISHED BOOKS FOR HAWAII STATE
LIBRARY AND SELECTED MAINLAND LIBRARIES

Findings and Recommendations

- The probability of ownership, the probability of availability, and a user's chance of obtaining a recently-published book ("success score") are generally low for the State Library in comparison with similar libraries (success scores of .061 versus .160 and .166) and Hamilton Library at the University of Hawaii (success score of .061 versus .225).

- The success score at the Hilo Regional library is approximately 87% of the State Library's and the Kaimuki Regional Library is approximately 44% of that of the State Library (.053 and .027 compared to .061); however, the probability of availability of the books that are owned is better at these libraries than at the Hawaii State Library (.771, .609, and .508 respectively).

- The success score measures at the Liliha Library and Kahuku Community/School Library are 3% and 13% respectively of that of the State Library, while their probability of availability is equal to (Kahuku) and much lower (Liliha) than that of the State Library.

Recommendation #1

In order to raise the library patron's chances of obtaining a recent book, the number of recently-published books owned by State system libraries should be increased significantly. This should be accomplished by increasing the budget for book acquisition. If the over-

all library budget cannot be increased, other costs should be reduced in order to accommodate the purchase of more books.

Recommendation #2

Methods should be developed to help to make the books that are owned more available to patrons at each library and throughout the State by such means as:

- *a closer follow up on overdue books;*
- *shorter loan periods;*
- *an improved inter-library loan system.*

These methods are discussed in more detail later in this report.

2. Ownership, Circulation, and Demand for Circulating Books

Measurements of book ownership and circulation were developed from data concerning books owned and books circulated by a library.

(a) Book ownership

A sample of books owned was developed by drawing a random sample of approximately 500 titles from the shelf list and recording for each:

- Dewey Classification;
- year of publication;
- catalogue number.

Then a search was made of the shelves to determine whether the book was available at that time. The results of these measurements are shown in Table 4 for the Hawaii State Library, Table 5 for the Kaimuki Regional Library and Table 6 for the Liliha Library. The availability of the samples of owned books was not measured at Liliha and Kaimuki. These measurements were not conducted at Kahuku and Hilo, due to constraints on the survey team's time while it was away from Honolulu.

(b) Book Circulation

The materials circulated for six days were tallied at the Hawaii State Library by the type of material, by Dewey Classification and by date of publication of books. This was accomplished by:

- o Selecting every tenth Kaiser charge slip, starting at a given random number;
- o separating out those that were illegible and counting each;
- o segregating the items charged out by type of material and counting each type;
- o making the tally by Dewey Classification and by year of publication.

Of the 359 Kaiser charge slips selected, 106 were discarded as illegible. The items on the remaining 253 charge slips were tallied as shown in Table 7.

TABLE 4

	Year of Publication							
	Prior 1971	1971	1972	1973	1974	1975	1976*	Total
Dewey Class								
000			2	1		1		4
100	10	1	1	1	1	1	1	16
200	11	1		2		1		15
300	40	5	3	3	3	10	5	68
400	2							2
500	12				2	1		15
600	26		2	6	2	2	1	39
700	56	1	2	3	2		1	65
800	30		3	1	5	1	1	42
900	30	2	3	3	5	1	1	45
Fiction	49	2	4	5	2	3	3	68
Foreign Books	7				1	1		9
Biography	14	3	2			1	2	22
Subtotal	287	15	22	25	31	21	9	410
	70.1%	3.6%	5.3%	6.1%	7.6%	5.1%	2.2%	100%
Juvenile Fiction	24	4	2	3	1			34
Non-Fiction	34	1	1	1	1	4		42
Subtotal	58	5	3	4	2	4	--	76
	76.4%	6.6%	3.9%	5.2%	2.6%	5.3%	--	100%
Hawaii & Pacific								
Fiction	2	--	--	--	--	--	--	2
Non-Fiction	23	2	1	1	--	1	--	28
Subtotal	25	2	1	1	--	1	--	30
	83.3%	6.7%	3.3%	3.3%	--	3.3%	--	
Total	370	146	146	146	146	146	9	516
Percent of Total	71.8%	4.3%	5.0%	5.8%	6.4%	5.0%	1.7%	100%
Number on Shelves	262	17	16	15	25	17	3	355
Percent Availability	70.8%	77.2%	61.5%	50.0%	75.8%	66.7%	33.3%	68.8%

*Not all 1976 books that were ordered were received by the survey date.

HAWAII STATE LIBRARY

TITLE OWNERSHIP BY YEAR OF PUBLICATION AND DEWEY CLASS
BASED ON RANDOM SAMPLE OF BOOKS (TOTAL 516)

TABLE 5

	Year of Publication							
	Prior 1971	1971	1972	1973	1974	1975	1976	Total
Dewey Class								
000	1							1
100	3			1	1			5
200			1					1
300	5	1	2	3	5	2	2	20
400	1							1
500	5							5
600	6		3	1	1	1		12
700	4	1	2		3	1		11
800	9		1					10
900	7	3		1		1		12
Fiction	2			1			1	4
Foreign Books								
Biography	5	—	1	—	—	—	—	6
Subtotal	48	5	10	7	10	5	3	88
	54.4%	5.7%	11.4%	8.0%	11.4%	5.7%	3.4%	100%
Juvenile Fiction	--	--	--	--	--	--	--	--
Non-Fiction	--	--	--	--	--	--	--	--
Subtotal	--	--	--	--	--	--	--	--
Hawaii & Pacific								
Fiction	--	--	--	--	--	--	--	--
Non-Fiction	1	1	1	2	1	--	1	7
Subtotal	1	1	1	2	1	--	1	7
	14.3%	14.3%	14.3%	28.5%	14.3%	--	14.3%	
	49	6	11	9	11	5	4	95
Total	51.5%	6.3%	11.6%	9.5%	11.6%	5.3%	4.2%	100%

KAIMUKI REGIONAL LIBRARY

TITLE OWNERSHIP BY YEAR OF PUBLICATION AND DEWEY CLASS
BASED ON RANDOM SAMPLE OF BOOKS (TOTAL 95)

TABLE 6

	Year of Publication							
	Prior 1971	1971	1972	1973	1974	1975	1976	Total
Dewey Class								
000	1							1
100	6							6
200	2				1			3
300	15	5	1	1	1			23
400	2							2
500	7			2	1			10
600	14		4	2	1	1		22
700	6		3	2	2	4		17
800	8	1	1	1				11
900	13		1	1	1	1		17
Fiction	31	5	2	2	4		1	45
Foreign Books	1		1					2
Biography	6	—	—	—	—	1	—	7
Subtotal	112	11	13	11	11	7	1	166
	67.6%	6.6%	7.8%	6.6%	6.6%	4.2%	.6%	100%
Juvenile Fiction	30	2	1	1	--	3	--	37
Non-Fiction	45	1	3	--	1	--	--	50
Subtotal	75	3	4	1	1	3	--	87
	86.4%	3.4%	4.6%	1.1%	1.1%	3.4%	--	100%
Hawaii & Pacific								
Fiction	--	--	--	--	1	--	--	1
Non-Fiction	11	1	1	1	1	2	--	17
Subtotal	11	1	1	1	2	2	--	18
	61.0%	5.6%	5.6%	5.6%	11.1%	11.1%	--	
Total	198	15	18	13	14	12	1	271
	73.0%	5.5%	6.7%	4.8%	5.2%	4.4%	.4%	100%

LILIHA LIBRARY

TITLE OWNERSHIP BY YEAR OF PUBLICATION AND DEWEY CLASS
BASED ON RANDOM SAMPLE OF BOOKS (TOTAL 271)

TABLE 7

Type of Material	Number	% of Total	% of Type Identified
books	695	74	89
pictures	33	4	4
pamphlets	30	3	4
paperbacks	25	3	3
undetermined	154	16	--
total	937	100	100

CLASSIFICATION OF MATERIALS BY TYPE

ON SEVEN PERCENT SAMPLE OF KAISER CHARGE SLIPS

Record charge slips for the six-day period amounted to 243; 707 records were borrowed (2.9 records per borrower). This compares with 3.0 items per borrower for the materials recorded on the 359 Kaiser charge slips. The total number of items borrowed during the six-day period was 11,477 items, or 1,913 per day. The breakdown by Dewey Classification and by year published for books that were legibly recorded on the Kaiser charge slips is shown in Table 8.

TABLE 8

Class	Prior 1971	1971	1972	1973	1974	1975	1976	Total	%
Adult									
Fiction	37	2	3	3	8	14	8	75	10.8
Non-Fiction 000-999	210	23	19	25	26	52	12	367	52.8
Biography	7	3	2	0	2	6	1	21	3.0
Young Adult*	16	5	3	5	3	3	0	35	5.0
Children									
Fiction	82	8	5	9	8	5	0	117	16.8
Non-Fiction	56	4	6	8	4	2	0	80	11.5
Totals	408	45	38	50	51	82	21	695	100.0
% of total	(58.7)	(6.5)	(5.5)	(7.2)	(7.3)	(11.8)	(3.0)	(100.0)	

* Not segregated by type of book.

BREAKDOWN OF BOOKS CIRCULATED BY

YEAR PUBLISHED FOR SAMPLE AND LEGIBLE KAISER CHARGE SLIP

(c) Demand Index

A demand index based on the data in Tables 5 and 8 has been calculated for the Hawaii State Library. This demand index relates the kinds of books owned and kinds of books borrowed. The demand index for a class of book is simply the percentage of all books borrowed that belong to that class divided by the percentage of all books owned that belong to that class, times 100. The higher the number, the more that type of book is "demanded" relative to other types of books owned by the the library.

Table 9 combines data from Tables 5, 6, 7, and 8 for comparative purposes, and shows the demand index for the Hawaii State Library by book class and by age of books.

TABLE 9

	Hawaii State Library			Kaimuki Regional Library	Liliha Library
book classes:	books owned	books circulating	demand index*	books owned	books owned
adult fiction	13 %	11 %	85	4 %	17 %
general works, philosophy, religion (000-299)	7	7	100	7	4
social science, language (300-499)	14	11	79	22	9
pure science, technology (500-699)	11	13	118	18	12
art, literature (700-899)	21	16	76	22	10
history, biography (900-999)	13	13	100	19	9
juvenile fiction	7	17	257	--	14
juvenile non-fiction	8	12	150	--	19
Hawaiian and Pacific, foreign	8	--	---	7	7
age of books:					
published within last five years	28 %	41 %	146	48 %	27 %
published more than five years ago	72	59	82	52	73
Total number of books sampled	516	660		95	271

*Column 2 divided by column 1 times 100

Note: "Young adult" book category not included in percentages

Source: Library measurements

TYPES OF BOOKS IN THE COLLECTIONS OF SELECTED LIBRARIES

Findings and Recommendations

- More than 70% of the books circulated in two of the three libraries measured (State Library and Liliha) are more than five years old. Only 54% of the books at Kaimuki were published more than five years ago; however, this estimate was based on only 95 books in the sample, compared to samples of 516 books at the State Library and 271 books at Liliha.
- The demand index shows that books published within the last five years have almost twice the demand of books published more than five years ago.
- Juvenile books, which make up 15% of the collection at the Hawaii State Library, constitute 28% of the books borrowed. The highest demand indices recorded were for juvenile fiction and juvenile non-fiction.
- Ranking next highest in terms of the demand index is the classification "pure science/technology," while "art, literature" ranks lowest. It is very likely that if "pure science and technology" were measured in greater detail, "how to make" and "how to do" books would show up as one of the class of books most in demand in the State Library, as well as in other libraries.

Recommendation #3

Since space is a limiting factor at the State Library, non-circulating non-reference books should be weeded out of the collection on a regular basis.

Recommendation #4

The high demand for juvenile books registered at the State Library should be met by increasing the number of juvenile books available. However, this need may be better met at regional, or community, or community/school libraries.

The juvenile collection should be moved to another location. This will provide more space for this collection and for additional juvenile books, because of the need for more resource material to be housed there and since space is a limiting factor at the State Library. This recommendation was also made by John Humphry, library consultant, in 1975.[1]

Recommendation #5

The demand index for book classes shown in this report (see Table 9) should be calculated and used on a regular basis to help establish the proportion of the book budget that should go to each book class. Librarians should not ignore the books that they believe to be of

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[1] John A. Humphry, Consultant, Report to Mrs. May C. Chun, State Librarian/ Assistant Superintendent, Hawaii State Department of Education, March 24, 1975.

importance to their patrons; however, the demand index can provide valuable guidance in book selection.

It should be noted that the recency of books owned by a library may be a more appropriate criterion for one book class than another. That is, it is more important for "pure science/technology" books to be up-to-date than it is for "art/literature" books.

B. Non-Circulating Materials

Non-circulating materials in State of Hawaii libraries consist of reference books and periodicals. The in-library use of materials covers both library materials and materials brought by patrons.

1. Reference Collection

Table 10 shows that the reference collection of the State Library made up approximately fifteen percent of its total collection. It also presents the distribution of reference books by Dewey Classification. The largest numbers of reference books are in the social sciences (21.1%) and literature (19.4%). Technology ranks third, with 12.4% of the reference collection.

Holdings by Dewey Classification in order of the frequency with which they are requested by patrons at the State Library are shown in Table 11. The ranking of the first four classes asked for is similar to the ranking of their availability, as shown in Table 10.

TABLE 10

Dewey Classification	Number of Reference Titles	Percent of Reference Titles	Percent of Total Collection	Ranking
000-999 (General works)	2,014	8.6	1.3	
100-199 (Philosophy)	881	3.7	.6	
200-299 (Religion)	853	3.6	.5	
300-399 (Social Sciences)	4,968	21.1	3.2	1
400-499 (Languages)	991	4.2	.6	
500-599 (Pure Science)	2,088	8.9	1.3	
600-699 (Technology)	2,121	9.0	1.4	4
700-799 (The Arts)	2,913	12.4	1.9	3
800-899 (Literature)	807	3.4	.5	
900-999 (History)	4,579	19.4	2.9	2
Staff collection	1,322	5.7	.9	
Foreign collection	--	--	--	
Genealogy	--	--	--	
Foreign languages	--	--	--	
Fiction	--	--	--	
Juvenile	--	--	--	
Total	23,547	100.0	14.95	

Source: Masae Gotanda, Equal Access to Library Materials: An Administrative Problem of Restructuring the Libraries in Hawaii to Provide Equal Access. Dissertation, School of Education, University of Southern California, in partial fulfillment of the requirements for the Degree of Doctor of Education, June, 1977.

HAWAII STATE LIBRARY

ANALYSIS OF BOOK COLLECTION:

REFERENCE TITLES IN RELATION TO TOTAL COLLECTION (157,515)

TABLE 11

Classification	Dewey Decimal Classification	Percent
Social Sciences	300-399	15.7
History	900-999	15.6
Art	700-799	14.5
Technology	600-699	8.6
Literature	800-899	8.4
Pure Sciences	500-599	4.6
Philosophy	100-199	3.4
Religion	200-299	3.3
Language	400-499	1.6
General Works	000-999	2.3
Fiction		12.1
Juvenile		6.4
Staff collection		1.4
Foreign languages		1.8
Geneology		.3

Source: Masae Gotanda, Equal Access to Library Materials: An Administrative Problem of Restructuring the Libraries in Hawaii to Provide Equal Access. Dissertation, School of Education, University of Southern California, in partial fulfillment of the requirements for the Degree of Doctor of Education, June, 1977.

HAWAII STATE LIBRARY

HOLDINGS BY DEWEY DECIMAL CLASS IN ORDER ASKED

The reference collection at the State Library was measured by a method similar to that employed for the circulating collection, as described earlier. Steps involved in this measurement included:

- o Selecting a well established authority on reference books;
  - Sheehy, Guide to Reference Books, 1976 was chosen[1]
- o drawing a random sample of approximately four hundred titles from Sheehy's Guide;
  - 410 books were selected
- o looking up these random samples in the shelf list and noting the date of publication of each reference owned;
- o tabulating and summarizing the data by Dewey Classification and by year of publication.

The results of this analysis are shown in Table 12. These data show that the highest percentages of sample reference titles owned were in the "general works" and "education" categories (20.0% and 17.4% of those reference titles were owned by the library). Pure science and philosophy ranked lowest at (1.3% each).

Titles in Sheehy's guide were compared to the ownership of reference books in the State Library for those reference categories which our consultant believed were appropriate for the State Library. This comparison is shown in Table 13.

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[1] Eugene Paul Sheehy. Guide to Reference Books, Ninth Edition. American Library Association: Chicago, 1976.

TABLE 12

Subject and Dewey Decimal Classification	Before 1971	1971	1972	1973	1974	1975	Total	Sheehy's References Found in HSL
General Works 0-99	9	1	4	1	-	-	15	20.0%
Philosophy 100-199	1	-	-	-	-	-	1	1.3%
Religion 200-299	3	-	1	-	-	-	4	5.3%
Education 400-499	8	1	1	1	1	1	13	17.4%
Pure Science 500-599	1	-	-	-	-	-	1	1.3%
Technology 600-699	5	1	1	-	-	-	7	9.3%
Art 700-799	6	1	1	1	2	-	11	14.7%
Literature 800-899	4	-	-	-	-	-	4	5.3%
History 900-999	8	1	-	2	-	-	11	14.7%
Total	52	5	9	5	3	1	75	100.0%
% of References	69.3%	6.7%	12.0%	6.7%	4.0%	1.3%	100.0%	100.0%
Total in Sample Drawn at Random							410	
Percent Ownership at HST of Sheehy Guide by Year	12.7%	1.2%	2.2%	1.2%	0.7%	0.2%	18.2%	

HAWAII STATE LIBRARY

OWNERSHIP OF REFERENCE BOOKS FOUND IN SHEEHY GUIDE
TO REFERENCE BOOKS, 1976
BASED ON DEWEY DECIMAL CLASSIFICATION
AND YEAR OF PUBLICATION

TABLE 13

Types of References	Percent
Encylopedia	72
Language Dictionaries	21
Periodicals	13
Education	37
Economics	32
Political Science	28
General History	27
General Works	22
Biological Science	22
Total Sample	26
Total number of reference titles in sample	2841

Based on sample of selected subjects in Sheehy, Guide to Reference Books(1976).

PERCENT OF REFERENCES RECOMMENDED BY SHEEHY THAT ARE OWNED BY THE HAWAII STATE LIBRARY BY TYPE OF REFERENCE

Findings and Recommendations

- The percentage of reference books in the State Library's total collection is low (15%) for a resource library.
- The ranking of references asked for generally corresponds with the ranking of references available. However, there appears to be too many social science references and too few fiction references in relation to the percentage of requests for them.
- The percent of Sheehy's recommended references found in the State Library was low (18.2%); pure science was lowest (1.3%).
- Almost 70% of all the sample reference titles owned by the State Library were published before 1971, and none of the references in pure science and technology owned by the library was published after 1972.
- The State Library owns a high percentage of the encyclopedia titles recommended in Sheehy's Guide (72%) but is lacking in other types of references appropriate for the State Library -- the average percent of other types of references owned was 26%.

Recommendation #6

Improve the ownership of reference books at the State Library by the purchase of more references. Sheehy's recommendations should be used as a guide by those responsible for the selection of additional references.

Recommendation #7

In order to reinforce the role of the State Library as the primary resource center for the Hawaii State library system, a role which has received increasing support,[1] *the reference/resource collection should be coordinated and separately managed as a State Library program. The physical separation of this collection from the circulation collection should be achieved even if a new, separate facility is unavailable.*

Recommendation #8

The reference collection should be funded separately, and its performance against separate goals should be measured regularly.

2. Periodicals

Measurements of the adequacy of the periodical collection at the five libraries studied and at the Hamilton Library of the University of Hawaii were made following procedures established by Ernest De Prospo and his associates. These procedures are similar to those for previous measures, except that the sample of recognized indices was compiled by De Prospo and his associates. The periodical list of each library was compared with this sample.

Table 14 summarizes the current availability of periodicals for the libraries studied, compared to De Prospo's sample titles. The probability of availability of these periodicals ranges within the State of Hawaii library system from .05 at Liliha to .45 at the State Library, and from .00 for Biological and Agricultural periodicals at Kaimuki, Liliha, and Kahuku to .95 for periodicals listed in Reader's Guide at the State Library.

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[1] Legislative Auditor of the State of Hawaii, A Study of the Library System of the Department of Education, Special Report, No. 77-2, February, 1977.

At the State Library, the periodical request slips for periodicals from the closed stacks (for back issues) were collected for the six days of our study, and were tabulated as shown in Table 15 by day and by reason requests were not filled.

TABLE 14

		Proportion in Library					
	Total in Sample	Hawaii State Library	Kaimuki Regional Library	Liliha Library	Kahuku Community-School Library	Hilo Regional Library	Hamilton Library (University of Hawaii)
Applied Science and Technology	40	.50	.03	0	0	.05	.60
Art	40	.25	.05	0	.03	.08	.48
Biological and Agricultural	40	.05	0	0	0	.03	.80
Business Periodicals	40	.85	.05	.03	0	.10	.70
Education	40	.45	.05	0	.05	.08	.75
Public Affairs Information	40	.20	0	0	.03	0	.50
Reader's Guide	40	.95	.48	.35	.45	.80	.73
Social Sciences	40	.38	.03	.03	0	.03	.78
Overall	320	.45	.08	.05	.07	.14	.67

Source: Sample of current periodicals--library measurements

AVAILABILITY OF CURRENT PERIODICALS FOR
SELECTED LIBRARIES IN HAWAII

TABLE 15

	(Th) 11/18	(F) 11/19	(S) 11/20	(M) 12/6	(T) 12/7	(W) 12/8	Total
Number of Requests Submitted	322	126	507	182	241	137	1515
Percent of Total for Week	21.3%	8.3%	33.5%	12.0%	15.9%	9.0%	100.0%
Requests Filled	300	99	393	149	202	122	1265
Reasons for Unfilled Requests							
Missing/In Use	16	8	89	17	26	12	168
Check Date/Title	1	--	6	6	5	1	19
Do Not Have	5	10	10	1	6	2	34
Not Received	--	4	8	8	2	--	22
Other	--	5	1	1	--	--	7
	22	27	114	33	39	15	250

HAWAII STATE LIBRARY

PERIODICAL REQUEST BREAKDOWN BY DAY

Findings and Recommendations

- The availability of periodicals at the State Library is quite high generally (.45), but was low in Biological and Agricultural subjects (.05).
- The availability of periodicals is very low in all other state libraries (under .10), except in Hilo (.14).
- For libraries in a state with a large agricultural base, the representation of Biological and Agricultural periodicals is lower than desirable.
- The percent of requests filled ranged from a high of 93.2% on Thursday to a low of 77.5% on Saturday, when approximately one-third of all requests for periodicals were made.

Recommendation #9

The probability of availability of periodicals should be improved at all public libraries.[1]

Recommendation #10

The development of appropriate periodical collections requires the

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[1] Note: The present low level of periodicals at other libraries probably accounts for the high demand on Saturday at the State Library, when all requests could not be filled because of the heavy use of periodicals. An increased level of periodicals at other libraries and advertising of this fact would encourage more of the public to use the libraries, an objective which is now frequently pursued through the development of programs to attract potential library users.

use of other guides in addition to the Reader's Guide in the selection of periodicals for the State library system.

Subscriptions to Biological and Agricultural periodicals should be increased at all libraries, especially at the State Library resource center, and a more extensive examination should be made of other subjects which should receive greater coverage through subscription to periodicals. However, when selecting technical and scientific periodicals, emphasis should generally be placed on those offering practical information (such as seed and fertilizer magazines for rural farming communities) and magazines of general reader interest (such as Scientific American).

C. In-Library Use of Materials

The in-library use of materials by patrons includes library materials which may be borrowed and materials which may not be borrowed (discussed in detail in this section). The use of patrons' own materials is discussed under the subject of Providing Facilities to Users (see Section II of this report). The in-library use of library materials was measured according to methods developed by De Prospo and his associates, and included:

- o posting a sign on tables, desks and carrels in the library which asked the users not to return the materials that they used to the shelves but to leave them on the tables, carrels, etc., instead;

- picking up the materials regularly from the tables (at approximately one-hour intervals) and noting what types of materials were collected, by department;
- returning the materials to the shelves as soon as possible after tabulation so that their absence for classification purposes would not adversely affect their rate of usage.

The summary of the data collected by days of the week for in-library circulation in all units of the State Library except the periodical department is shown in Table 16.

TABLE 16

Type of Material	Dates						Total	% of Total
	Thurs. 11/18	Fri. 11/19	Sat. 11/20	Mon. 12/6	Tues. 12/7	Wed. 12/8		
Reference	106	40	67	51	118	87	469	9.6
Fiction	175	153	110	114	104	125	781	16.1
Non-Fiction	620	333	608	363	370	431	2725	56.0
Periodical	58	46	12	34	39	11	200	4.1
Newspaper	14	5	6	0	22	5	52	1.1
Document	-	-	-	4	-	31	35	0.7
Telephone Book	-	3	9	3	1	4	20	0.4
Microfilm	-	-	-	-	-	19	19	0.4
Filmstrip	-	-	-	-	-	-	-	-
Audio Tape or Cassette	-	-	11	-	-	-	11	0.2
Vertical File	-	-	9	-	-	-	9	0.2
Phono Record	16	2	21	8	5	-	52	1.1
Other	75	43	25	69	134	145	491	10.1
TOTAL	1,064	625	878	646	793	858	4,864	100.0
% of Total	21.9	12.8	18.0	13.3	16.3	17.7	100.0	

HAWAII STATE LIBRARY
IN-LIBRARY CIRCULATION BY DAY
(Summarized For All Departments Except Periodicals)

The total number of library materials used in the State Library, as measured by this method, was 4,864 items, or 811 items per day. These materials were 42.4% of the total number of circulating materials borrowed during the same period (see Section I-A, item 2b). Since some of the materials probably were put away by patrons by habit and therefore not counted, the in-library circulation of books may be as much as one-half as great as the number of materials circulated outside the library.

The in-library circulation is summarized by units and areas in the State Library in Table 17 for the same period. It should be noted that Business, Science and Technology and Fine Arts are credited with the materials left on the carrels on the second floor near these units, and the Young Adult unit is probably credited with some other materials which have been left there by patrons. The definition of in-library use of books by area probably is not too precise because of spillover from one location to another.

Although the substantial in-library circulation in the Juvenile unit was first considered to be due to the large groups of children who came to this unit during the weekday, a higher proportion of in-library circulation occurred in the Juvenile unit on Saturday than on any other day of the week.

The summary of the in-library circulation for the other libraries studied is shown in Table 18. Total in-library circulation as a percent of external circulation for the Hawaii Library (Hilo) and Kaimuki were 35.0% and 37.0%, respectively.

TABLE 17

	Biog.	Lang. Lit. & Hist.	Fiction	Hawaiian & Pac.	Juvenile	Ref.	Business Sci. & Tech.	Federal Documents	Fine Arts	Social Sciences	Young Adult	Garden Court	Oriental Books	Total	% of Total
Reference	--	--	--	16	10	148	135	32	78	36	6	8	--	469	9.6
Fiction	--	2	140	12	491	1	3	1	7	3	48	18	52	481	16.1
Non-Fiction	1	246	39	217	771	13	383	4	502	292	48	72	45	2,725	56.0
Periodical	23	1	5	4	--	40	2	11	75	--	15	15	34	200	4.1
Newspaper	--	--	--	21	--	1	12	2	7	--	2	6	1	52	1.1
Document	--	--	--	--	--	--	--	35	--	--	--	--	--	35	0.7
Telephone Book	--	--	--	--	--	--	20	--	--	--	--	--	--	20	0.4
Microfilm	--	--	--	19	--	--	--	--	--	--	--	--	--	19	0.4
Filmstrip	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Audio Tape or Cassette	--	--	--	--	11	--	--	--	--	--	--	--	--	11	0.2
Vertical File	--	--	--	--	--	--	--	--	--	9	--	--	--	9	0.2
Phonograph Record	--	--	--	--	6	--	--	--	36	10	--	--	--	52	1.1
Other	--	30	18	91	56	2	61	2	56	46	65	5	59	491	10.1
TOTAL	24	279	202	380	1,345	205	616	87	761	396	254	124	191	4,864	100.0
% of Total	0.4	5.8	4.1	7.8	27.7	4.2	12.7	1.8	15.7	8.2	5.2	2.5	3.9	100.0	

HAWAII STATE LIBRARY

IN-LIBRARY CIRCULATION

(Summarized By Units And Other Areas)
(Nov. 18, 19, & 20 & Dec. 6, 7, & 8, 1977)

TABLE 18

IN-LIBRARY CIRCULATION FOR SELECTED LIBRARIES IN FALL, 1976

Type of Material	Name of Branch Libraries										TOTAL	% of TOTAL
	Hilo Regional			Liliha Community			Kaimuki Regional			Kahuku Community/ School		
	12/2	12/3	Total	11/23	11/24	Total	11/29	12/1	Total	11/30		
Reference	48	36	84	12	11	23	26	31	57	24	188	11.4%
Fiction	26	32	58	60	17	77	57	111	168	69	372	22.7%
Non-Fiction	106	55	161	92	69	161	137	71	208	49	579	35.3%
Periodical	64	46	110	27	22	49	40	71	111	8	278	17.0%
Newspaper	23	19	42		7	7	3	14	17	4	70	4.4%
Document												
Telephone Book	1	3	4				3	0	3		7	0.4%
Microfilm	10	4	14				11	6	17	2	33	2.0%
Filmstrip							2	2	2		2	0.1%
Audio Tape or Cassette							5	24	29		29	1.7%
Vertical File	8	8	16				7	17	24	1	41	2.4%
Phono Record	7	2	9								9	0.5%
Other	8	7	15	2	12	14	5	0	5		34	2.1%
TOTAL	301	212	513	193	138	331	296	345	641	157	1642	100.0%
Average Per Day			2565			165.5			320.5	157.0	1595	

This summary included all periodicals found in the other libraries, whereas the periodicals left on the tables in the serials unit were not counted at the State Library except on Saturday (the figures for Saturday are not included in the tabulation). In spite of this difference in methodology, the comparison of the in-library circulation of the State Library and the other libraries, shown in Table 19, indicates that there is a high level of the use of reference and non-fiction collections in all State libraries, with the highest use occurring, as expected, at the State Library.

Findings and Recommendations

- The use of library materials by patrons within the State Library (in-library circulation) was almost one-half as great as the use of library materials outside the library (normal circulation) during the study period. If the daily in-library use of periodicals had been included, the in-library count would probably have been close to 50% higher than it was.
- The in-library use of materials is lower at the regional libraries measured than at the State Library.
- The largest in-library circulation at the State Library occurred on Thursday (21.9% of total circulation during the test period), followed closely by Saturday (18.0%) and Wednesday (17.7%).
- Juvenile books accounted for the largest in-library circulation (27.7%). Fine Arts (15.7%) and Business Science and Technology (12.7%) showed high in-library circulation also, but counts for these areas included items on carrels.

TABLE 19

	Items in Use				
	Hawaii State Library	Kaimuki Regional Library	Hilo Regional Library	Liliha Library	Kahuku Community-School Library
non-fiction book	56 %	32 %	31 %	49 %	31 %
fiction book	16	26	11	23	44
periodical	4	17	21	15	5
reference	10	9	16	7	15
newspaper	1	3	8	2	3
phonograph record	1	0	2	0	0
document	1	0	0	0	0
telephone book	--	--	--	0	0
microfilm	--	3	3	0	1
audio tape or cassette	--	5	0	0	0
vertical file	--	4	3	0	1
other	10	1	3	4	0
Total number of items in use	5,289	641	513	331	157

TYPES OF MATERIALS IN USE
WITHIN SELECTED PUBLIC LIBRARIES

- The comparison of the types of materials used in-library for the various libraries showed a higher use of non-fiction materials at the State Library and a higher use of non-fiction materials at the other libraries, as might be expected. Other materials (principally paperbacks) also showed significantly higher use at the State Library than at the other libraries.

Recommendation #11

The methodology for collecting this in-library use information needs to be improved in order to show data separately for common areas and specialized units or divisions within the library, and to collect data on periodical usage in a uniform fashion.

Recommendation #12

Since the in-library use of library books is substantial (approximately one-half of external circulation), adequate space for patron use of the library should be made available (see next section of this report).

D. Intrasystem Loans

Intrasystem loans, which are a small part of the State of Hawaii library system's circulation now, are likely to increase significantly in the near future. Books borrowed and loaned books (intrasystem) and books circulated in the Hawaii State library system are compared for 1971-1972 and 1976-1977 in Table 20, which follows.

TABLE 20

	1971 - 1972						1976 - 1977						Percent Gain or Loss in 5 Years		
			Intra System		Percent of Circulation				Intra System		Percent of Circulation				
	No. of Libraries	Total Circulation	No. Books Borrowed	No. Books Loaned	Books Borrowed	Books Loaned	No. of Libraries	Total Circulation	No. Books Borrowed	No. Books Loaned	Books Borrowed	Books Loaned	Circulation	Borrowed	Loaned
Oahu Public Libraries	18	2,431,991	4,458	3,782	0.2%	0.2%	18	2,641,344	4,932	5,044	0.2%	0.2%	8.6%	10.6%	33.4%
Hawaii Public Libraries	11	498,834	13,079	8,246	2.6%	1.7%	13	656,289	12,528	13,403	1.9%	2.0%	31.6%	-4.3%	51.9%
Maui Public Libraries	6	298,830	1,974	1,852	0.6%	0.6%	6	345,404	1,863	733	0.5%	0.3%	15.6%	-0.6%	-60.5%
Kauai Public Libraries	4	290,106	6,514	6,553	2.2%	2.2%	5	381,234	1,936	2,051	0.5%	0.5%	31.4%	-70.3%	-31.3%
Sub total Public Libraries	39	3,519,761	26,025	20,433	0.7%	0.6%	42	4,024,271	21,259	21,231	0.5%	0.5%	14.3%	-18.4%	3.9%
Hawaii State Libraries	1	577,177	1,109	10,816	0.2%	1.9%	1	533,152	NA	8,443	NA	1.6%	-9.2%	NA	-21.9%
Total All State of Hawaii Libraries	40	4,096,938	27,134	31,249	0.7%	0.7%	43	4,557,423	NA	29,674	NA	2.3%	11.2%	NA	-5.0%

Source: Ruth S. Itamura - Annual Report Library Service Branch July 1, 1976 to June 30, 1977, Hawaii State Library System.

HAWAII STATE LIBRARY SYSTEM

BOOKS BORROWED & BOOKS LOANED (INTRA SYSTEM) & BOOKS CIRCULATED
1971 - 1972 COMPARED TO 1976 - 1977

Between 1971-1972 and 1976-1977, public libraries decreased their intrasystem borrowings by 18.4% and increased their intrasystem loans by 3.9% while experiencing a 14.3% gain in circulation. The Hawaii (island) public libraries decreased their intrasystem borrowings by 4.3% and increased their intrasystem loans by 51.9%, while experiencing a 31.6% gain in circulation. At the same time, the State Library decreased its intrasystem loans by 21.9% while its circulation dropped 9.2%. Information is not yet available on the State Library's borrowings for the year 1976-1977.

The table shows that intrasystem loans are low at the State Library (1.6% of circulation). This fact was noted by the Legislative Auditor.[1] Intrasystem loans are slightly higher in the Hawaii (island) public libraries (2.0% of circulation) but are much lower in the other library subsystems, including Oahu public libraries (0.5% or less of circulation).

When BIBLIOS (Book Inventory Building and Library Oriented System) HAWAII becomes fully operational, the system will generate a magnetic tape record of all books held by the State of Hawaii library system, and this information will become available in all Department of Education public libraries and public high school libraries through micro-view. Presently, the card catalogue in each library reflects only the titles held in that one library. The union catalogue will present all titles in the entire State library system. Thus, through BIBLIOS, the library users will be exposed to the system-wide inventory of books and undoubtly will seek to borrow books through inter-library loans from other libraries when the titles are not available at the patron's own library.[2]

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[1] Ibid.

[2] Masae Gotanda & Charles P. Bourne, BIBLIOS HAWAII, Office of Library Services, State of Hawaii, 1976.

Although the BIBLIOS report states that "The use of libraries by the general public will increase and the use of each individual title, therefore, will become higher" and "The library system will be utilizing its materials and resources to its fullest,"[1] these high goals will not be achieved without a major change in the intraloan system.

The Legislative Auditor reported that in a six month survey of interlibrary and intrasystem loans, "only 14 percent of the materials requested of the Hawaii State Library were found and loaned." This inability to fill other library needs, according to the Legislative Auditor, is in part due to the following:

(1) "reserves for materials can only be placed for materials that are on order but not as yet in the collection;"

(2) "36 percent of the materials requested, though catalogued in the collection, were not found on the shelf;"

(3) "31 percent were not in the State Library's collection."[2]

That there will be substantial patron pressure for the intrasystem loan procedures to function well when patrons of all libraries become aware of the total book inventory (union catalogue) is indicated by the following findings:

- The BPR Probability Sample results (see Table 1) show that the chances of obtaining a recently published book at Liliha, for example, is 2 out of 1,000 while it is 61 out of 1,000 at the

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[1] *Ibid*.

[2] Legislative Auditor, *Op. Cit*.

State Library;

- The demand index for recently published books (see Table 9) shows that the demand for recently-published books is almost twice as high as it is for older books (published six or more years ago).

Also, the effect of union catalogues being made available in other libraries has been documented:

- The Baltimore County Library System experienced "far beyond the expected normal growth" -- a gain of 72% in interloans in one year versus a normal growth of 6%;
- In the Minnesota System, interloans coming in to St. Paul increased from 800 a month to 2,000 a month in 1974-1975 (a gain of approximately 125%);
- The South Carolina State Library experienced a sharp increase in interloan activity of 140 percent.

Although the State of Hawaii has no formal policy statement relative to intrasystem loans, cooperation among libraries has been a tradition in the library field. Recent conclusions and recommendations in relation to intrasystem loans include the following:

- Booz, Allen & Hamilton, in its report in 1968 to the State of Hawaii,[1] recommended a program of community and regional libraries which would be the major contact between patrons and public libraries, and they proposed that a Hawaii library resource center be developed to support the needs of the regional and community libraries.

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[1] Booz, Allen and Hamilton, Planning for Libraries in Hawaii: A Comprehensive Statewide Planning and Feasibility Study for Public Libraries and Joint School and Public Library Facilities. A report prepared for the Office of Library Services, Department of Education, State of Hawaii, August, 1968.

- By 1976, a survey showed that 73 percent of the professional public librarians in Hawaii felt that patrons had a right to borrow all of the materials in the system, even though physical access had to be limited to use in a local library.[1]
- The Legislative Auditor strongly recommended that the State Library "provide in-depth reference services to support all libraries in the State."[2]

To fill this role, John Humphry suggested that the State Library become an adult non-fiction resource for public libraries, to be reached through referrals. He proposed that a popular library be established for circulating frequently used materials at the State Library, but as noted earlier, he recommended that children services be relocated away from the State Library.[3] Sixty-six percent of the professional public librarians in Hawaii surveyed felt that the State library should have a popular, circulating collection also if priorities were set toward service to libraries.[4]

The practice of state libraries serving as non-circulating resource centers is growing in other states such as New York, California, Illinois and Ohio.

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[1] Masae Gotanda, Equal Access to Library Materials: An Administrative Problem of Restructuring the Libraries in Hawaii to Provide Equal Access. Dissertation, School of Education, University of Southern California, in partial fulfillment of the requirements for the Degree of Doctor of Education, June, 1977.

[2] Legislative Auditor, Op. Cit.

[3] Humphry, Op. Cit.

[4] Gotanda, Op. Cit.

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Some resistance by librarians has been reported in the larger states during the transition to this method of operation.

No formal arrangements exist for books and other materials to be borrowed by the Hawaii State library system from other systems in the State of Hawaii such as the University of Hawaii libraries. When a patron of the State Library is unsuccessful in obtaining a book or other needed material, the librarian refers the patron to the University library or specialized libraries, such as the Hawaii Medical Library, the Supreme Court Library, or others, but does not take on the responsibility of obtaining the book or other material for the patron.

Findings and Recommendations

- Interlibrary loans are a minor part (1.6%) of all circulation at the State Library, the State of Hawaii's resource center;
- The demand for intrasystem loans will increase substantially when BIBLIOS HAWAII becomes operational;
- The interlibrary loan system seems to be working best and most consistently on the island of Hawaii, but only amounts to 2.0% of all circulation there;
- The State library system is not set up to handle the anticipated increased demand, and no program has been adopted to date to develop this capability;
- Librarians in Hawaii generally perceive that all library patrons should have an equal right to access all of the material in the State library system, even though physical access had to be limited to use in a local library;

- The Legislative Auditor and previous consultants have strongly recommended that the intrasystem needs of community and regional libraries be provided by the State Library;
- The practice of state libraries being non-circulating, resource libraries, is becoming widespread;
- State librarians would be more helpful to patrons if they would obtain books and other materials from other library systems, rather than just referring them to other library systems.

Recommendation #13

The methods and procedures for the interlibrary loan system should be reviewed, and responsibilities and manpower relevant to its operation should be assigned.

Recommendation #14

The Office of Library Service should explore the possibility of working cooperatively with the libraries at the University of Hawaii and the librarians in the State to extend interlibrary loans beyond the State of Hawaii system, thereby assuring Hawaii residents at any library location access to all of the library resources within the State. It is understood that BIBLIOS can be expanded to include other collections in the State union card catalogue.

E. Circulation Control System

The present circulation control system, called the Kaiser Charge System, is relatively simple and is initiated by each person who borrows books and other library materials. A multi-copy form for overdue follow-up is used in some libraries but not in others in the system.

While the Kaiser Charge System was initiated to reduce the work load in State of Hawaii libraries, it has the disadvantage of providing no permanent records of the use of individual titles, classes of books, or types of materials. Nor does the system indicate where a book is in the system and when it may be expected to be returned.

There is no coordination of the Kaiser Charge System between or among State libraries because each library in the State library system is an autonomous unit for circulation record keeping. However, the Kaiser Charge System allows for borrowing books from one library and returning them to another, and for the interloan of books from one library to another.

Although our review of other circulation systems has been brief, we understand that some new automated circulation systems in use and others in development would have the capacity to handle transactions for the Hawaii State library system as a whole, rather than for individual units only. While these automated circulation systems apparently are expensive to install and operate and are not yet trouble free, they do provide control data and circulation information that would be useful to the State library system.

The long range plan to initiate an automated system should not be regarded as a panacea for all of the ills of the present system, nor should it be regarded as primarily a labor saving device. Rather it should be considered as a potential tool that can help to tie the State library system together and provide important data for interlibrary loan purposes.

Recommendation #15

The Office of Library Services should continue to research and study automated circulation systems used elsewhere which can accommodate all of the State libraries within one system. While automation of the State Library circulation system has been suggested as a means of improving the intrasystem loan procedures at that library, the system concept would be voided if other libraries were not included as well.

Recommendation #16

The Department of Education should include in the future budgets for State libraries the cost of such a sophisticated circulation system when it has been established that large automated circulation systems are practical elsewhere.

F. Costs of Materials and Other Operating Expenses

The costs of materials and other operating expenses of the Office of Library Services have increased substantially in recent years. Total expenditures increased 24.4% between 1971-1972 and 1975-1976, but book expenditures were no higher in 1975-1976 than in 1971-1972 (Table 21).

As a result of the increased costs of books, up 22.2% between 1971-1972 and 1975-1976 as shown in Table 21, effective book expenditure (taking inflation into account) in 1975-1976 was 81.4% of the 1971-1972 levels. This helps to explain the relative unavailability of recently-published books at Hawaii libraries, noted previously in this report.

The amount allocated for materials to some of the libraries is very small when compared to the materials budget for the State Library (Table 22). This explains the low "success score" at the branches compared to the State Library noted earlier.

The lists of books sent to the branches to be used in their book selection process consists primarily of titles purchased by the State Library. However, the branches have little opportunity to select from these lists because of their limited budgets. This raises a question concerning the value of the time being spent in the preparation of book lists.

The Materials Evaluation and Programming Section is now concerned with the putting together of book lists, which is normally an activity of book purchasing units such as the Hawaii library system's Centralized Processing Center. The operational aspects of book selection, including monitoring of book selection in the Hawaii State Library and the provision of in-service

TABLE 21

	1971-72	1972-73	1973-74	1974-75	1975-76
Salaries	$3,275,240	$3,212,168	$3,569,846	$3,743,897	$3,975,534
% of Total	69.7%	70.3%	75.6%	71.9%	68.0%
Books	793,815	654,283	551,373	633,847	789,993
% of Total	16.9%	14.3%	11.7%	12.2%	13.5%
Other Expenses	630,395	704,464	599,642	829,895	1,086,389
% of Total	13.4%	15.4%	12.9%	15.9%	18.5%
Total Expenditure[1]	4,699,450	4,570,915	4,720,911	5,207,639	5,846,926
Total % Increase over 1971	-	97.2	100.4	110.8	124.4
Book Expenditure Corrected for Price Change[2]	-	667,635	598,667	596,281	646,475
Effective Book Expenditure as A % of 1971 Book Expenditures	100.0	84.1	75.4	75.1	81.4

	1971	1972	1973	1974	1975
Average Hard-cover Price	$13.25	$12.99	$12.20	$14.09	$16.19
% Increase over 1971	--	98.0	92.1	106.3	122.2

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[1] Total of State expenditures and encumbrances by year plus expenditures of Federal funds from Administrative Director, O.L.S.

[2] Source. Bowker Annual Books in Print

OFFICE OF LIBRARY SERVICES ANNUAL EXPENDITURES

1971 to 1976, Inclusive

WITH BOOK EXPENDITURE CORRECTED BY INDEX OF INCREASED BOOK COSTS

TABLE 22

	1971-1972		1972-1973		1973-1974		1974-1975		1975-1976		1976-1977			
	$	% of Total	$	% of Total	$	% of Total	$	% of Total	$	% of Total	$	% of Total	Total $	% of Total
Oahu Public Libraries	372,759	50.8	329,601	51.3	244,155	55.5	303,306	50.6	395,710	45.9	399,277	46.9	2,044,828	49.5
Hawaii Public Libraries	107,240	14.6	97,313	15.2	48,929	11.1	79,561	13.3	82,658	9.6	88,767	10.4	504,468	12.2
Maui Public Libraries	58,673	8.0	52,260	8.1	32,617	7.4	53,208	8.9	58,895	6.9	62,119	7.3	317,772	7.7
Kauai Public Libraries	34,721	4.7	31,563	4.9	27,304	6.2	33,689	5.6	39,696	4.6	58,820	6.9	225,793	5.5
Sub Total Public Libraries	573,393	78.1	510,737	79.5	353,005	80.2	469,766	78.4	576,959	67.0	609,003	71.5	3,092,861	74.9
Hawaii State Library	160,996	21.9	131,650	20.5	86,737	19.8	129,350	21.6	284,509	33.0	242,300	28.5	1,035,542	25.1
TOTAL FOR YEAR	734,389	100.0	642,387	100.0	439,742	100.0	599,116	100.0	861,468	100.0	851,303	100.0	4,128,403	100.0
Percent Increase (or decrease) over 1971-1972 for Public Libraries			(-10.9%)		(-38.4%)		(-18.1%)		+ 0.6%		+ 6.2%			
Total Percent Increase (or Decrease) over 1971-1972			(-12.5%)		(-40.1%)		(-18.4%)		+17.3%		+15.9%			

Note: All figures are based on the operational expenditure plan. Actual expenditures may differ slightly from the plan.

Source: Administrative Services, Office of Library Services.

TRENDS IN BOOK FUNDS FOR STATE OF HAWAII LIBRARIES 1971-1977 training for libraries within the system, would be most appropriately linked with the development of subject collections, which is currently conducted in the Hawaii State Library. The monitoring of book purchasing by public library units is usually placed in a central headquarters of the public library system. Since the Hawaii library system lacks such a central unit, monitoring should probably be divided among regional libraries, since they are most knowledgable about the needs in their regions.

The book inventory by type of holding for the Hawaii State Library for the period from 1970 to 1975 is shown in Table 23. This table also shows the gain or loss of books by type of holding.

Findings and Recommendations

- The largest gain (29.7% of the total increase in State Library holdings) was in Government Documents, which increased by 55%.
- The next largest gain (20.8% of the total gain) was in Hawaiian Historical Documents, a non-circulating, reserve collection. This collection is an unnecessary duplication of the Hawaii and Pacific holdings, and these holdings are also a duplication of much of the material in the Hawaii Collection at the University of Hawaii. When combined with the Hawaii and Pacific holdings, the increase in Hawaiian and Pacific materials constituted 28.5% of the total gain at the Hawaii State Library.

TABLE 23

TYPE OF HOLDINGS	FY 1970	FY 1971	FY 1972	FY 1973	FY 1974	FY 1975	NET GAIN/LOSS	% GAIN/LOSS
TOTAL ITEMS IN STOCK	533,114	572,658	556,673	584,196	618,457	643,380	+110,266	21
A. TOTAL BOOK COLLECTION	228,927	246,269	250,541	266,722	285,303	294,811	+ 65,864	29
1. ADULT TOTAL	187,151	197,991	198,407	210,701	224,847	232,035	+ 44,884	24
Art, Music, Recreation	25,111	26,904	27,933	29,447	31,859	33,521	+ 8,410	33
Business, Science, Technology	24,737	26,904	27,216	28,793	30,954	29,826	+ 5,089	21
Fiction	29,832	30,235	29,295	30,609	30,612	30,945	+ 1,113	4
Hawaii & Pacific	20,581	22,727	24,488	26,058	28,380	30,015	+ 9,434	46
History	20,432	21,056	21,969	23,338	24,741	25,583	+ 5,151	25
Literature	17,713	19,783	21,629	23,094	24,633	25,681	+ 7,968	45
Reference	17,283	18,221	11,712	12,647	13,497	14,094	- 3,389	- 19
Social Science	28,932	30,409	31,426	33,602	37,058	39,026	+ 10,094	35
Gift Book Duplicates	1,938	2,405	2,739	3,113	3,113	3,344	+ 1,406	73
Large Type Books	392	--	--	--	--	--	- 392	-100
2. YOUNG ADULT	13,514	14,158	14,740	16,012	16,855	17,637	+ 4,123	31
3. JUVENILE TOTAL	28,282	34,120	37,394	40,009	43,009	43,601	+ 16,857	60
B. TOTAL SPECIAL COLLECTIONS	304,167	326,389	306,096	317,474	333,154	348,569	+ 44,402	15
ALLIANCE FRANCAISE DEPOSIT	1,123	1,127	906	943	944	941	- 182	- 16
BOUND PERIODICALS	--	--	7,177	7,465	7,827	8,013	+ 8,013	100
DIRECTORIES	468	497	501	503	411	399	- 69	- 15
FILM REELS	1,207	1,362	1,549	1,677	1,591	1,691	+ 484	40
FILMSTRIPS	625	643	643	633	633	379	- 246	- 39
GERMAN LANGUAGE COLLECTION	60	70	30	30	30	30	- 30	- 50
GOVERNMENT DOCUMENTS	59,308	65,628	70,550	77,155	84,780	92,077	+ 32,769	55
HAWAIIAN HISTORICAL ITEMS	27,587	36,415	40,842	44,093	47,412	50,535	+ 22,948	83
JAPANESE COLLECTION	536	716	716	716	716	716	+ 180	34
MAPS	2,001	2,104	2,434	2,504	2,804	2,840	+ 839	42
MICROFILM REELS	6,789	6,925	7,405	7,633	8,302	9,302	+ 2,513	37
PAMPHLETS	87,442	86,763	90,027	91,829	93,818	96,958	+ 9,516	11
PAPERBACKS	34,559	42,870	--	--	--	--	--	--
PERIODICAL SUBSCRIPTIONS	1,335	1,537	1,616	1,423	1,245	1,310	- 25	- 2
PHONORECORD DISCS	9,349	10,025	11,533	12,689	13,740	14,365	+ 5,016	54
PICTURES	71,778	69,706	70,058	68,074	68,275	68,212	- 3,566	- 5
TAPES, CASSETTE	--	--	107	107	626	801	--	--
MAGAZINE TITLES		1,262	1,335	1,197	1,202	1,219*		
NEWSPAPER TITLES		54	56	55	55	63**		

*Periodical subscription plus gifts.
**Newspaper subscription plus gifts.

Source: Masae Gotanda, Equal Access to Library Materials: An Administrative Problem of Restructuring the Libraries in Hawaii to Provide Equal Access. Dissertation, School of Education, University of Southern California, in partial fulfillment of the requirements for the Degree of Doctor of Education, June, 1977.

HAWAII STATE LIBRARY VOLUME HOLDINGS

- The third largest gain occurred in Juvenile holdings (15.3% of the total gain); these showed an increase of 60% for FY 1975 over FY 1970. During the same period adult holdings increased only 29%, although they did make up 59.5% of the total gain in holdings at the State Library.
- During the 1970 FY to 1975 FY period reference books as a separate class of holdings dropped 19%, from 3.3% of the collection to 2.2% of the collection at the State Library. Some of the smallest increases were in the fiction holdings, which showed a 4% gain from 1970 FY to 1975 FY.
- There appears to be a lack of direction in the purchase of books at the Hawaii State Library. The greatest increases have been in non-circulating holdings and in types of holdings not consistent with the generally accepted purpose of the Hawaii State Library; at the same time, there has been a reduction in the reference book collection at the Hawaii State Library, which is supposed to be the resource center for the State library system.

Recommendation #17

The overall materials budget should be increased at least in proportion to the increased costs of books, and in future budgets it should be brought up to at least the 1971-1972 level of approximately 20 to 25% of total expenditures.

Recommendation #18

When the book budget is increased, more book funds should be allotted to the branches.

Recommendation #19

The allocation of the Hawaii State Library materials budget should be carefully monitored by type of holding. Particular attention should be given to the development of the collection so that its holdings reflect that of a state resource center and not just a branch library.

Recommendation #20

The Hawaiian Historical Collection at the State Library should be disseminated to the public libraries in the State system. This collection not only absorbs a high percentage of the book budget, but also demands considerable Hawaii and Pacific staff time (see Section III of this report).

Recommendation #21

More time should be spent by the Materials Evaluation and Programming Section in formulating policy guidelines for collection development rather than routine book purchasing. A policy should be established which would permit all libraries to augment their basic needs with special acquisitions to meet their unique requirements. The majority of the materials in each branch *should reflect the needs of the community served by each branch library. Policies for providing collection development guidelines and instruments for the evaluation of these guidelines should be initiated through the Research and Evaluation Section. This section is already responsible for policy guidelines and evaluation for the system, and is already engaged in creating collection development guidelines.*

II. MAKING LIBRARY FACILITIES AND EQUIPMENT AVAILABLE TO USERS

In order to make materials and staff available to patrons, the Office of Library Services provides facilities and equipment within the facilities to aid users in their reading, study, relaxing and meeting activities. The purpose of this Section is to report the results of our measurements and observations of facilities and equipment usage.

In this analysis, we departed from the methodology recommended by Altman and associates.[1] Their procedures to measure equipment and facilities usage, which involved (1) a count of available facilities and equipment by category and (2) a count of the usage of these items, would have allowed the computation of a library utilization factor, usage by hour of the day, and the relative use of different facilities and equipment.

We did, however, collect data similar to that proposed by De Prospo and his associates in conjunction with measuring patron activities (as described below) and measuring staff activity (see Section III of this report).

A. Methods Employed in Measuring Patron Activities

The work sampling approach was used to obtain a representative picture of library patrons' activities. As the observer made periodic observations of staff activity (see Section III of this report), the activities of the patrons were also observed in order to measure:

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[1] Altman et. al, Op. Cit.

- How the library patrons spent their time;
- What their major activities were;
- What equipment and facilities were used and how frequently were they used;
- Whether patrons had to wait significant periods of time to receive library services;
- When these activities, uses and delays took place.

Patron activity was categorized as follows:

- Walking in and out;
- Completing charge slips;
- Browsing;
- Waiting;
- Using library materials;
- Using own materials;
- Using card catalogue;
- Using copy machine;
- Using the telephone;
- Using audio-visual equipment;
- Using the Hawaii newspaper index;
- Talking to others;
- Other activities involving staff.

B. Patron Activity at the State Library

Only at the State Library was there a sufficient number of observations to allow reliable generalizations about library patrons' activities. However, the sampling of patron activities at the other libraries provided sufficient assurance that the procedures could be carried out satisfactorily in these locations.

The results of the six day measurement of patron activities are shown for the State Library in Table 24 for the hours from 9 A.M. to 5 P.M., and in Table 25 for the hours from 5 P.M. to 8 P.M. (Tuesday and Thursday nights). Table 26 summarizes the average number of patrons observed by time of day by location within the State Library during the six-day study period. Table 27 shows the use of the card catalogue as measured by the sampling of patron activity. The data were summarized by hour and by location of the card catalogue used. Conclusions from these tables are listed under Findings and Recommendations, following Table 27.

TABLE 24

	Language, Literature & History & Circulation	Juvenile & Young Adult*	Periodicals	Hawaiian & Pacific	Business Science & Techonology Federal Documents*	Fine Arts & A/V	Social Science	Total of Averages (Number)	% of Tota
Walk In & Out	2.3	2.1	.3	.2	.5	.4	.7	6.5	5.7%
Charge Slips	1.6	2.1	.5	.1	--	.4	.1	4.8	4.2%
Browsing	4.0	6.4	1.7	2.2	3.7	3.4	3.3	24.7	21.5%
Waiting	2.6	1.0	.3	.2	.1	1.0	.2	5.0	4.4%
Using Lib. Mtl.	6.2	9.3	9.8	3.6	8.5	4.8	3.8	46.0	40.0%
Using Own Mtl.	1.5	1.1	.2	.2	2.2	1.8	.5	7.5	6.5%
Card Catalogue	4.1	.2	.1	.9	.3	.3	.4	6.3	5.5
Copy Machine	---	.1	---	.1	---	---	.4	.6	.5%
Telephone	.3	.1	---	---	---	---	---	.4	.3%
Audio Visual	---	.7	3.5	---	---	---	.7	4.9	4.3%
Newspaper Index	---	.1	---	.1	---	---	---	.2	.2%
Talking	.7	.5	.1	.1	.5	.3	.6	2.8	2.4%
Other	.6	.6	.1	.2	.6	.3	.3	2.7	2.4%
With Staff	.5	.2	.1	.5	.5	.4	.2	2.4	2.1%
TOTAL	23.9	24.5*	16.7	8.4	16.9	13.2*	11.2	114.8	100.0%
Percent of Total	20.8%	21.4%	14.5%	7.3%	14.7%	11.5%	9.8%	100.0%	

*Seating in courtyard and in second floor lanai carrels adjacent to these units is attributed to these units but does not indicate that these patrons were using materials from these units.

HAWAII STATE LIBRARY USAGE
AVERAGE PATRON USE
BY TYPE OF USE BASED ON
OBSERVATIONS OF PATRONS IN LIBRARY
(NOV. 18, 19, & 20 AND DEC. 6, 7, & 8, 1976)
9:00 A.M. TO 5:00 P.M.

TABLE 25

	Language, Literature & History & Circulation	Juvenile & Young Adult*	Periodicals	Hawaiian & Pacific*	Business Science Technology	Fine Arts & A/V	Social Science	Total of Averages (Number)	% of Total
Walk In & Out	.8	0	.2	.5	.1	0	.1	1.7	3.1%
Charge Slips	.8	0	0	0	0	0	0	.8	1.5%
Browsing	3.6	2.1	1.1	1.5	1.5	1.5	2.0	13.3	24.2%
Waiting	.4	0	.1	.1	.3	.1	.3	1.2	2.2%
Using Lib. Mtl.	5.5	4.0	8.4	2.9	2.1	2.1	1.1	26.1	47.5%
Using Own Mtl.	.1	.1	0	.1	1.4	.1	.1	1.9	3.5%
Card Catalogue	2.4	.1	0	.1	.1	.1	.1	2.9	5.3%
Copy Machine	0	0	0	0	0	0	.4	.4	0.7%
Telephone	0	0	0	0	0	0	0	0	0
Audio Visual	0	0	1.3	0	.1	.5	.4	2.3	4.2%
Newspaper Index	0	0	.1	0	0	0	0	.1	0.2%
Talking	0	.3	.6	0	.1	1.3	.5	2.8	5.1%
Other	.3	.1	.1	.3	.3	.0	0	1.1	2.0%
With Staff	0	0	0	0	.3	0	0	.3	0.5%
TOTAL	13.9	6.7	11.9	5.5	6.3	5.7	5.0	55.0	100.0%
Percent of Total	25.2%	12.2%	2.16%	10.0%	11.5%	10.4%	9.1%	100.0%	

*Seating in courtyard and in second floor lanai carrels adjacent to these units is attributed to these units but does not indicate that these patrons were using materials from these units.

Note: Federal Documents closed after 5:00 P.M.

HAWAII STATE LIBRARY USAGE
AVERAGE PATRON USE
BY TYPE OF USE BASED ON
OBSERVATIONS OF PATRONS IN LIBRARY
NOV. 18 AND DEC. 7, 1976
5:00 P.M. TO 8:00 P.M.

TABLE 26

	Hours of the Day										
location	9 to 10	10 to 11	11 to 12	12 to 1	1 to 2	2 to 3	3 to 4	4 to 5	5 to 6	6 to 7	7 to 8
Language, Literature, and History and Circulation	17.8	13.0	20.8	36.0	23.0	25.4	26.5	26.0	14.0	12.0	17.0
Juvenile and Young Adults	20.5	40.0*	35.5*	18.5	29.7	19.4	34.0	24.0	11.0	6.0	4.0
Periodicals	9.5	13.0	19.0	19.0	17.5	16.6	18.3	18.0	11.5	13.0	11.1
Hawaiian and Pacific	1.7	8.5	9.3	3.0	7.8	8.3	12.3	5.0	4.3	7.0	5.0
Business Science and Technology and Federal Documents	9.0	11.5	15.0	20.0	12.5	18.5	20.5	16.7	6.0	7.0	5.7
Fine Arts and Audio Visual	4.2	8.5	15.3	24.7	11.0	16.5	15.2	12.8	6.0	5.0	6.3
Social Science	3.3	7.0	11.8	16.3	12.3	19.0	12.3	5.5	7.0	5.0	3.7
Total for each hour	66.0	101.5	126.7	137.5	113.8	123.7	139.1	108.0	59.8	55.0	52.8
Each hour's percent of day total	6.1%	9.4%	11.8%	12.9%	10.6%	11.5	12.8%	9.4%	5.5%	5.1%	4.9%

* Class tours of the library in the morning increased the number of patrons at these times.

HAWAII STATE LIBRARY

AVERAGE NUMBER OF PATRONS OBSERVED BY TIME OF DAY AND LOCATION
NOVEMBER 18, 19, 20 AND DECEMBER 6, 7, 8

TABLE 27

Library Units		9-10	10-11	11-12	12-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	Number of Observations	Number of Users Observed	Average Users Per Observation*
		Hours of the Day Open to the Public													
Children	M*	0	0		0		0		0				5	0	
	T		0	0		0		0			1	0	6	1	
	W					0	0		0				2	0	
	T	0		0		0		0	0	0	0		7	0	
	F	0		0			0						3	0	
	S	0		0		0	0	3	0				6	3	.15
	SUB TOTAL							3			1				
Haw'n Pacific	M		0		0		1	0					4	1	
	T	0		0				3		0	0	0	7	3	
	W					1	1						2	2	
	T	0		0		1		0		1	0	0	7	2	
	F	0		0			0						3	0	
	S		1	3		1	1	4	1				6	11	
	SUB TOTAL		1	3		3	3	7	1	1			29	19	.68
Business Science and Technical	M	0		0	0		0		1				5	1	
	T		1	0			3	3		1	1		6	9	
	W	0				0		0					3	0	
	T		0		0		0		0	0	0		7	0	
	F		0	0		0		1					4	1	
	S	0	2	0	0	0		1	0				6	3	
	SUB TOTAL		3				3	5	1	1	1		31	14	.45
Fine Arts	M	0		1	0			0	0				5	1	
	T	0	0	0			1		0	0	0	0	8	1	
	W	0	0			1		1					4	2	
	T	0		0	0			0	1	0	0	0	8	1	
	F	0	0			0		0					4	0	
	S	0	0	1	1	1		0	0				7	3	
	SUB TOTAL			2	1	2	1	1	1				36	8	.19
General Reference	M	2		2	5		2		6				5	17	
	T		1	3		3		2		1	6	3	7	19	
	W	4				2	3						3	9	
	T	2				0	0		0	2	3	4	7	11	
	F	2		1			4						3	7	
	S	4		9		10	12	13	4				6	52	
	SUB TOTAL	14	1	15	5	15	21	15	10	3	9	7	31	115	3.71
Social Science & Philosophy	M	0		0	1			1	0				5	2	
	T	0	0	0			1		1	0	0	0	8	2	
	W		3			0		1					3	4	
	T	0		0	0		0		0	0	0		7	0	
	F		1				1	1					3	3	
	S		2				0	0	0				6	3	
	SUB TOTAL		6		2		2	3	1				32	14	.44
Total No. Observations		23	17	24	12	19	21	22	18	11	12	9	188		
Total No. Users Observed		14	11	20	8	20	30	34	14	5	11	7		174	
Total Users Per. Obser.		.60	.64	.83	.67	1.05	1.43	1.55	.72	.45	.92	.77			.93

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* Observation made Monday, Tuesday, and Wednesday on December 6, 7, and 8, 1976; and Thursday, Friday, and Saturday November 18, 19, and 20, 1976.

USE OF THE CARD CATALOGUE BY PATRONS IN THE
HAWAII STATE LIBRARY BY HOUR AND BY UNIT

FINDINGS AND RECOMMENDATIONS

- On the average during the survey, there were 114 patrons in the library from 9 A.M. to 5 P.M. and fewer than one-half that number on the average (55) from 5 P.M. to 8 P.M.;
- Using library materials was the most frequently observed activity (40.0% from 9 A.M. to 5 P.M. and 47.5% from 5 P.M. to 8 P.M.);
- Browsing was the second most frequently observed activity (21.5% from 9 A.M. to 5 P.M. and 24.2% from 5 P.M. to 8 P.M.);
- Use of own materials decreased during the later hours (from 6.5% for 9 A.M. to 5 P.M. to 3.5% for 5 P.M. to 8 P.M.);
- Waiting decreased during the later hours (from 4.4% for 9 A.M. to 5 P.M. and 2.2% for 5 P.M. to 8 P.M.);
- Use of the Hawaii and Pacific Room increased in relation to other units during the later hours (from 7.3% for 9 A.M. to 5 P.M. to 10.0% for 5 P.M. to 8 P.M.);
- Use of periodicals increased in relation to the other units during the later hours (from 16.7% for 9 A.M. to 5 P.M. to 21.6% for 5 P.M. to 8 P.M.);
- The number of patrons present in the State Library is substantially lower in the hour before 10 A.M. (66 patrons on the average) than after 10 A.M. and drops off again after 5 P.M. (to fewer than 60 patrons). There was an average of 121 patrons in the State Library between the hours of 10 A.M. and 5 P.M. during the study days;
- There are two peaks during the day: 12 noon to 1 P.M. (138 patrons on the average) and 3 P.M. to 4 P.M. (139 patrons on the average);

- There is less of a drop off after 5 P.M. in the number of patrons using the Hawaii and Pacific and the Periodicals Rooms than there is in the other units. It should be noted that these resources were not available to any great extent at other libraries which we studied on Oahu;
- The drop off in number of patrons in the Business, Science and Technology, and Federal Documents units after 5 P.M. is due in part to the fact that Federal Documents is not open from 5 to 8 P.M.;
- Card catalogues in the individual units (as opposed to the card catalogue in the main area) received little use by patrons;
- More use of the card catalogue is made by patrons at the Hawaii and Pacific Room than at other units;
- The peak use of the card catalogue took place on Saturday in the early afternoon, when there were ten or more patrons using the main catalogue during three successive hours.

Recommendation #22

For maximum effectiveness per hour of service, the State Library should be open from 10 A.M. to 5 P.M.

Recommendation #23

To offer more hours to patrons who work during the day, the State Library should remain open until 6 P.M. each evening except Sunday. By being open every night until 6 P.M., the library will give working residents some time for a visit to the library after the completion of their work day. In addition, there would be no question in patrons' minds which night the State Library is open - a problem now experienced *when it is open on Tuesday and Thursday nights only.*

Recommendation #24

Microfilm readers for the new automated union catalogue, which will be installed soon, should be placed in the State Library according to the frequency of use of the catalogues, as measured in this study. Such an allocation would assign two-thirds of the readers to where the main card catalogue is now located near the main entrance to the building.

C. Physical Access and Layout in the State Library

The physical layout of the Hawaii State Library makes operations there more difficult. There are three floors (basement, first floor, and second floor). Aside from the rest rooms located there, the basement is not used by the public.

The physical layout of the building and high degree of compartmentalization of the units make it difficult for patrons to find their way around the building. Also, call numbers for the book stacks are not in sequential order (as can be seen from the State Library directory shown on the following page). The building is not air conditioned, except for the Hawaii and Pacific Room, the A/V room and the director's office.

The building is ideally located to serve government activities, since it is located between the State Capitol and Honolulu Hale (City Hall for the City and County of Honolulu). It is just a few blocks from the business center of Honolulu. However, there is a lack of nearby parking for patrons during the weekdays.

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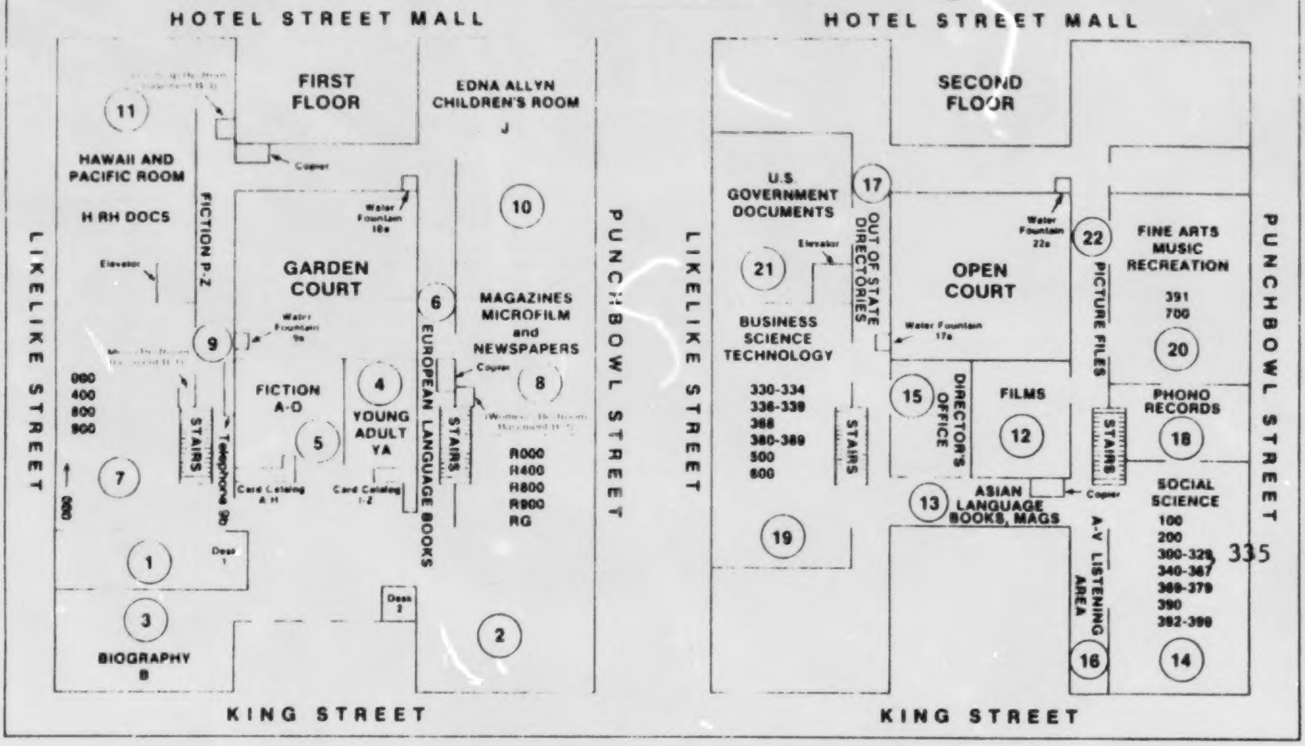
Hawaii State Library


HOTEL STREET MALL
HOTEL STREET MALL
FIRST FLOOR
EDNA ALLYN CHILDREN'S ROOM J
HAWAII AND PACIFIC ROOM
H RH DOCS
FICTION P-Z
GARDEN COURT
FICTION A-O
YOUNG ADULT YA
EUROPEAN LANGUAGE BOOKS
MAGAZINES MICROFILM and NEWSPAPERS
R000 R400 R800 R900 RG
000 400 800 900
STAIRS
Telephone 9b
Card Catalog A-H
Card Catalog I-Z
Desk 1
Desk 2
BIOGRAPHY B
Elevator
Copier
Water Fountain 10a
Water Fountain 9a
SECOND FLOOR
U.S. GOVERNMENT DOCUMENTS
OUT OF STATE DIRECTORIES
OPEN COURT
BUSINESS SCIENCE TECHNOLOGY
330-334 336-339 368 380-389 500 600
DIRECTOR'S OFFICE
FILMS
ASIAN LANGUAGE BOOKS, MAGS
PICTURE FILES
FINE ARTS MUSIC RECREATION
391 700
PHONO RECORDS
SOCIAL SCIENCE
100 200 300-329, 335 340-367 369-379 390 392-399
A-V LISTENING AREA
Water Fountain 22a
Water Fountain 17a
LIKELIKE STREET
PUNCHBOWL STREET
KING STREET
KING STREET
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22

Where To Find What In This Building

ANIMALS, Plants, Auto Repair, Business, Child & Prenatal Care, Bookkeeping, Stenography, Cookbooks, Consumer's Guides, Economics, Insurance, Taxes, Investments, Labor & Licensing, Psychiatry, Medicine, Nursing, Real Estate, Sewing, Technology, Radio, Television Repair, Transportation	19
ARCO CIVIL Service Tests, Astrology & the Occult, Careers, Education, Etiquette, Folktales, Law, Social Problems, Philosophy, Psychology, Religion, Government & Politics, Citizenship	14
ART & Architecture, Costume, Collecting, Games & Gambling, Handicrafts, Needlework, Music, Dance, Physical Fitness, Sports, Theatre, Opera, Movies, Show Business, Magazines	20
ASSISTANCE with Literature, History, Fiction, Biography, Genealogy, Travel, Maps	Desk 2
AUDIO VISUAL listening area	16
BIOGRAPHY	3
CHECK OUT & Return, Pickup Reserves, Lost & Found, Tape Cassettes	Desk 1
CHILDREN'S Books, Records, etc	10
COPYING Machines	8, 11, 18
DIRECTORIES, Mainland & Foreign	17
DIRECTOR'S Office	15
FICTION	
Authors A-O	5
Authors P-Z	9
FILMS	12
FRENCH, Spanish, German, etc books	6
HAWAII, Philippines, Australia, Pacific Islands City, County, State directories	11
JAPANESE, Chinese, Korean, Tagalog, Ilocano, etc books College Catalogs, Pamphlets on Social Science, Education, Vocations	13
LANGUAGE, English, Foreign, Literature, Plays, Poetry, Public Speaking, Humor, Library Science, Geography, History, Travel, Archeology, American Indians	7
MAGAZINES, Newspapers, Microfilm	8
PHONORECORDS	18
PICTURE FILES	22
RESTROOMS -	
Men's	Basement B-1
Women's	Basement B-2
Handicap	Basement B-3
TELEPHONES, Public	9b
UNITED STATES Government Documents	21
WATER Fountains	9a, 10a, 17a, 22a
YOUNG ADULT Books, Magazines, etc	4

WHERE TO FIND WHAT IN THIS BUILDING USING THE CATALOG

AREAS 1-11 are on the first floor
AREAS 12-22 are on the second floor

ODD NUMBERS on Left of building as you enter from King Street

EVEN NUMBERS on Right of building as you enter from King Street

BOOK NUMBERS

No number (Fiction) Author's name beginning with	
A-O	Area 5
P-Z	9
H or RH above number, "DOCS" with number	11
YA with or without number	4
B above numbers or letters	3
R above numbers in 000, 400, 800, 900	2
G, I, S, N, P (German, Italian, Spanish, Norwegian, Portuguese)	6
C, F, K, or J (Chinese, Filipino, Korean, Japanese	13
M above number	20
000	7
100, 200, 300-329	14
330-334, 336-339, 368, 380-389	19
335, 340-367, 369-379, 390, 392-399	14
391	20
400	7
500, 600	19
700	20
800, 900	7
900 Oversize	9

TAC 78-1505

Recommendation #25

Consolidate all of the reference units, except the Hawaii and Pacific Room, into a single reference desk.

Recommendation #26

To ensure that government and business users continue to have convenient access, the state resource center activities of the Hawaii State Library should remain at the library's present location rather than be moved to the proposed site for the new main library building which will be approximately four long blocks away (adjacent to Thomas Square).

D. Patron Activity, Facilities and Equipment at Other State of Hawaii Libraries

The patron activity observed at the branch libraries generally followed the same pattern as that measured at the State Library. Significantly more activity occurred in the day time than after the dinner hour (6 P.M.). Peak usage occurred in all of the other libraries in the afternoon after the close of school.

The other facilities were generally adequate to meet public demand, with little excessive crowding or lack of space. Crowding took place at Kahuku during recess; we understand this condition occurs when it rains at recess time.

The specialized rooms and equipment for A/V did not appear to be used much of the time at Kahuku. This was also noted to be the case by librarians at the Hawaii (island) Library also, where they have instituted a "Statistical Report of Media and Production Room Use" (shown on the following page) to measure the actual use of the specialized equipment there.

The Liliha Library appeared to be the best designed building for its purpose of serving the community that we visited. To facilitate the use of this library, a large master index has been placed on a placard just inside the front door. Subjects and Dewey Classes are shown on it and are keyed to the book shelves which are marked with large numbers similar to those seen in supermarkets. These numbers are readily visible from the front of the library, because there are not partitions in the public area and the book shelves are relatively low.

The school librarian at the Kahuku Library worked closely with the library staff in assisting the students with their use of the library resources. However, the

(HAWAII [ISLAND] LIBRARY AT HILO)

STATISTICAL REPORT OF MEDIA AND PRODUCTION ROOM USE

Library________________________ Month & Year________________

I. PRODUCTION OPERATIONS

No. of Items

Posters/Signs ________
Lamination ________
  Footage used ________
  Amount collected $________
Transparencies ________
Photography ________ ________
  Prints processed ________
  Rolls of films processed ________
  Slides copied ________
  Filmstrips copied ________
Audio taping ________
  Dubbing ________
  Original ________
Video taping ________
  Dubbing ________
  Original ________
  Playback ________

TOTAL ITEMS ________

II. PATRON USE

Media Centers ________
  Listening center (TV, cass) ________
  Children's listening station ________
  Carrels ________

    Types of equipment used:
      Cassette tape recorder ________
      film loop projector ________
      filmstrip projector ________
      microfilm reader ________
      record player ________
      filmstrip/cassette proj. ________
      television ________

Dark Room Use ________

TOTAL PATRONS ________

III. EQUIPMENT

Maintenance ________
Loans ________

audio/visual technicians in the library appeared to have little use made of their services. They therefore involved themselves in other projects, instead of concentrating strictly on the use of A/V equipment.

Recommendation #27

More measurements should be taken at other State of Hawaii libraries to determine patron usage by the hour and by the day in order to develop information useful for determining appropriate library hours. This should be done by observing the number of library patrons by the hour, and by recording the volume of circulation activity by the hour (by noting the sequential number of the Kaiser charge slips used each hour).

Recommendation #28

Measurements of the use of specialized rooms and equipment should be taken at representative libraries to determine the need for them at new facilities, and to assess whether the allocation of resources to these special purpose uses is justified.

Recommendation #29

The use of a master directoy near the front entrance to all State of Hawaii libraries should be expanded with other signs as a means of directing the public to the use of library facilities. This will save many hours of librarians' time by avoiding frequent interruptions to answer informational and factual questions.

III. MAKING STAFF AVAILABLE TO USERS AND OTHER PERSONNEL CONSIDERATIONS

Without the staff of the library to select the materials, prepare and maintain the collection, circulate and return materials, interpret the materials and instruct patrons in their use, the library materials and facilities would be ineffectively used. Altman and associates point out that, ". . .one of the most important resources that a library has to offer is the assistance of its staff."[1]

In order to get a picture of user-staff interaction and measure services to the public, the following measurements (developed by De Prospo and his associates) were conducted as a part of this study:

1) the availability of staff by hour in each department or branch; and,
2) the type and number of questions directed to staff members by patrons.

However, as noted in the previous paragraph, interpreting the materials and instructing patrons in their use are only part of the library staff's work. Therefore, to conduct our manpower survey and make recommendations for manpower distribution within present authorized positions, we made substantial use of work sampling techniques.

A. Manpower Survey

The manpower survey and patron survey (described in the previous section of this report) were conducted simultaneously in the five libraries studied. However, the number of observations was sufficient for quantitative analysis only at the Hawaii

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[1] Altman et. al., Op. Cit.

State Library, where 1,200 person-observations were made. However, observations taken at the other libraries were helpful in understanding manpower problems there; they also demonstrated that the technique could be used at other locations if more time were available.

The need for manpower analysis can be seen from Table 21 presented earlier (in Section I-F of this report), which showed that:

- More than two-thirds of the total Office of Library Services expenditures in 1975 were made for wages and salaries, and;
- Wages and salaries increased from $3,275,240 to $3,975,534 in annual expenditures between 1971 and 1975--an increase of 21%.

At the same time, the number of full time equivalent positions has decreased, along with other work load measurements, as shown in Table 28:

TABLE 28

		Oahu Libraries	Hawaii (island) Libraries	Kauai Libraries	Maui Libraries	Hawaii State Library
Circulation:	1972-1973	2,344,166	552,553	302,278	304,630	431,833
	1973-1974	2,321,600	565,346	295,138	293,486	403,852
	1974-1975	2,426,657	662,027	300,267	297,580	377,352
	1975-1976	2,577,318	651,300	320,007	351,078	411,967
	1976-1977	2,641,344	656,289	381,234	345,404	533,152
Total Number of Hours Open:	1972-1973	41,062	23,061	9,187	11,458	2,928
	1973-1974	38,260	23,790	8,660	11,221	2,599
	1974-1975	40,843	24,530	8,611	11,457	2,286
	1975-1976	42,063	25,252	8,595	13,018	2,613
	1976-1977	42,185	25,447	10,639	13,450	2,620
Number of Full Time Equivalent Positions:	1972-1973	135	50.3	27	33.9	85.5
	1973-1974	124	54.5	25	35.1	76.5
	1974-1975	121	62.5	25	36.1	76.5
	1975-1976	126	60.5	31	35.0	78.0
	1976-1977	127	60.5	36.5	35.0	65.0*

* Eight positions for the Library for the Blind and Physically Handicapped were transferred out, and five positions in Materials Evaluation & Programming were transferred to Administration.

Note: Position counts for all libraries exclude janitors; counts for the Hawaii State Library also exclude custodial and security attendents.

Source: Administrative Services, Office of Library Services.

TRENDS IN SERVICE AND STAFFING STATISTICS
FOR STATE OF HAWAII LIBRARIES 1972-1977

1. Work Sampling Approach and Background

The survey of library operations through the work sampling approach involves unobtrusive, multiple observations to get a representative picture of the work being performed, without the need for a detailed time study. Work sampling is used extensively in industry and manufacturing, and to a lesser extent in offices, to statistically measure the activities of personnel at all levels of employment. However, given the uses and advantages of work sampling,[1] it is surprising that work sampling did not become popular in libraries long ago.

The need for additional statistical data in libraries is evident in the literature. Dainte and Gorman state the problem as follows:[2]

> ". . . it is difficult to see how truly effective decisions can be made on a wide range of library problems in the absence of accurate and comprehensive information in usage of the library's collection."

They go on to say:

> "The sampling and time study of library staff personnel brings to bear sampling of managerial, professional, and clerical activities in a library. Control here is no Big Brother gimmick which in fact intrudes into personal privacy and denies individual freedom . . .

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[1] Ralph N. Barnes, Work Sampling, 2nd edition. Wiley & Sons: New York, 1957.

[2] Robert J. Dainte, Kenneth A. Gorman, Library Operations Research. Oceana Publications, Inc.: Dobbs Ferry, New York, 1974.

It is vital to control staff activities since salaries and wages--that is, cost of personnel--make up the largest single cost item in the library budget."

2. Objectives of Work Sampling

The work sampling which was performed as part of the scope of services included measurement of the following:

For the public service staff:

- How staff of the library spend their time;
- What their major activities are;
- To what extent work is being performed by professional staff that could be performed by technical and clerical personnel;
- Whether there are undue delays or time spent away from the work place;
- Possible opportunities for methods of improvement.

For the library patrons:

- How the library patrons spend their time;
- What their major activities are;
- What equipment and facilities are used most frequently;
- Whether patrons must wait for significant periods of time before receiving library services.

For both public service staff and library patron measurements, the objectives included developing and testing methods of data collection which could be repeated by the OLS without the use of consultants.

3. Methodology Employed

The success and accuracy of the data derived from work sampling depend primarily on the methods employed. These include definition of the elements to be sampled, strict adherence to sound statistical sampling techniques, and the number of observations taken in carrying out the sampling program.

The sample involved scheduling observations once per hour. At times this interval extended from one and a half to two hours, due to delays and time out for meals. In summarizing the data, however, it became apparent that all parts of the work day were adequately represented.

The starting time for the observation rounds for each day was selected at random, but the rounds through the library units were made in the same sequence each day. The route for data collection could have been varied from trip to trip but this would have extended the interval between individual observations significantly, and would have taken more observer time per round.

The activity of the persons observed was noted when the observer first entered the work place or room. Where the nature of the activity was not obvious or was unfamiliar to the observer, the person being observed was asked to describe what they had been doing at that time. When a person was absent from his or her usual work place, a blank form was left on the person's chair to be filled out by the staff member and picked up in a subsequent observation round. This form contained the following information:

- Name of staff person absent from usual work place;
- Date and time of observation round;
- Instructions to staff person to advise observer of their activity when missing by filling in the blank portion of the form.

In this work sampling, no attempt was made to adjust the time of the observation rounds to the work paces of the persons observed. The nature of the work did not lend itself to this refinement, and further analysis would have provided only marginal additional data for the extra time and effort required.

4. Work and Activity Elements

The library staff work was categorized in terms of nine broad work classifications and one classification for personal time:

1. Collection Development;
2. Collection Organization;
3. Collection Preparation and Maintenance;
4. Collection Storage and Return;
5. Circulation Activities;
6. Collection Interpretation and Use;
7. Management;
8. Staff Development;

9. Other;
10. Personal Time and Delays.

These broad categories and the work elements measured within these major areas were selected from 1615 tasks performed by 116 individuals in 18 libraries, as reported by Ricking and Booth.[1] The primary work elements actually employed are shown in Table 29. This list also shows those work elements which generally require trained professionals to perform those tasks satisfactorily. For the larger units at the State Library, special work elements were also included in the work sheets at the request of the librarians responsible for those units. These are shown in Table 30.

5. Results of the Work Sampling

Significant results of the work sampling and related measurements are presented in Tables 31 through 34, and are summarized at the end of this section under Findings and Recommendations. These data were collected, for the most part, as part of the training program of an analyst in Research and Development in the Office of Library Services. However, the summary and analysis of the data were performed by the library consultants.

The distribution of person hours observed by library unit at the State Library is shown in Table 31. This table shows that the circulation unit requires more than

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[1] Myre Ricking and Robert E. Booth, Personnel Utilization in Libraries - A Systems Approach. Published in cooperation with the Illinois State Library by the American Library Association: Chicago, 1974.

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TABLE 29

Work Classification	Work Element	Requires Professional Labrarian
Collection Development	Book review and selection	yes
	Annotating books and editing lists	yes
	Selecting specific materials needed from lists	yes
	Producing book lists for distribution	no
	Other technical and clerical development work	no
Collection Organization	Develop, supervise and review collection organization	yes
	Organization, maintenance of special resources	yes
	Carrying out collection maintenance procedures	no
Circulation	Circulation planning and organization	yes
	Supervision of circulation	yes
	Transporting books (including loading and unloading)	no
	Checking books in	no
	Checking books out	no
	Carrying out reserve procedures	no
	Withdrawls and disposals other than to circulation	no
	Maintaining card file	no
	Shelving materials	no
	Other circulation activities	no
	Responds to complaints and factual questions	no
Collection Interperlation and Use	Guidance and instruction in collection usage	yes
	Reference assistance in person or by mail	yes
	Telephone assistance - reference	yes
	Telephone assistance - factual	no
	Interloan materials requests	no
	Interloan reference requests	yes
	Carry out interloan procedures	no
Management	Management	yes
	Own library planning	yes
	Own library personnel	yes
	Own library public relating	yes
	Own library fiscal matters	yes
	Statistical and clerical	yes
Staff Development	Staff training on job	--
	Staff training off job	--
Other	Other non-classified functions	--
	Planning special programs	yes
	Carrying out special programs	yes
	Adding to collection	yes

WORK ELEMENTS EMPLOYED IN WORK SAMPLING IN OLS LIBRARIES

TABLE 30

Library Unit	Work Element	Requires Professional Librarian
Hawaii and Pacific Room	Maintenance of Hawaiian Historical Collection	yes
	Maintenance of Hawaiian Documents	no
	Indexing of Hawaii newspapers	yes
Serials	Check in and claim material	no
	Retrieving, paging and maintaining serials	no
	Set aside (serials)	no
Management	Other libraries - planning	yes
	Other libraries - public relations	yes
	Other libraries - fiscal	yes
	Other libraries - personnel	yes
	Bookmobile and other programs	yes
Personal and Delay	Waiting to serve customers	--
	Personal time	--
	Coffee breaks	--
	Meal time	--
	Not at station	--

SPECIAL WORK ELEMENTS REQUESTED BY LIBRARY STAFF
IN THE WORK SAMPLING OF OLS LIBRARIANS AND
PERSONAL AND DELAY ELEMENTS

TABLE 31

Circulation	26.1%
Hawaii & Pacific	14.6%
Periodicals	12.5%
Language, Literature & History	10.3%
Children & Young Adults	8.5%
Business, Science & Technology	8.1%
Audio-Visual	7.2%
Fine Arts	5.3%
Social Science & Philosophy	4.0%
Federal Documents	3.4%

Note: Includes professional, technical and clerical time.

HAWAII STATE LIBRARY

DISTRIBUTION OF PERSON HOURS OBSERVED BY UNIT
Nov. 18, 19 & 20 and Dec. 6, 7, & 8, 1976

one-quarter of all person hours at the State Library. Hawaii and Pacific and Periodicals together required another one-quarter of all patron hours.

Major uses of staff time analyzed by work elements are shown in Table 32.

TABLE 32

Circulation Activities	31.1%*
Information & Reference Services	16.3%
Collection, Organization, Maintenance & Additions to Collection	14.1%**
Management	12.1%
Collection Selection & Development	11.8%
Training	4.0%
Special Programs	3.0%
Other	7.6%

*9.1% of all person observations in overdue procedures

**7.5% of all person observations in collection maintenance procedures

HAWAII STATE LIBRARY

MAJOR USES OF TIME OF STAFF BY DESCRIPTION OF WORK
(Based on 1,200 Person Observations Nov. 18, 19, & 20 and Dec. 6, 7, & 8)

Because some circulation activities are performed by units other than the circulation unit, circulation activities account for nearly one-third of all work elements at the State Library.

Information and reference services and collection, organization, maintenance and additions to collection are nearly equal in rank, and together make up another one-third of all work elements.

In the footnotes in Table 32, two major time consuming work elements are noted:

- 9.1% of all work observed in the State Library was involved with overdue procedures at the circulation unit;
- 7.5% of all work observed in the State Library was involved in collection maintenance procedures, although the Central Processing Center of the Office of Library Services is supposed to carry out this function for all libraries.

Tables 33 and 34 show a summary of work sampling observations by unit at the State Library. The subtotal from Table 33 for Book and Reference Units is carried forward to Table 34 for comparison with the circulation and special materials units of audio-visual and circulation. Noteworthy in these tables is the high percentage of time in collection maintenance spent by the Federal Documents and Hawaii and Pacific units, due to the cataloging work they perform.

It should be noted that all units except audio-visual, which is under Fine Arts, spend a high percentage of their time in management activities--an average of 12.1% for all units. Also, special programs accounted for nearly one-third of all of the juvenile unit's staff activity during the study period.

Findings and recommendations relative to the State Library staff measurements described above are discussed under a separate heading, "Proposed Methods and Other Changes," at the end of this section.

TABLE 33

	Language, Literature & History	Business, Science & Technology	Federal Documents	Science & Philosophy	Fine Arts	Juvenile	Hawaii & Pacific	Book and Reference Units Subtotal
	Percentage of Person Observations by Unit							
Collection Development	25.0%	37.1%	19.5%	21.0%	22.2%	10.8%	8.0%	19.0%
Collection Maintenance	9.7	2.1	26.8	8.3	6.3	7.8	40.0	19.5
Circulation	2.4	4.1	2.4	8.3	11.1	9.8	4.0	5.5
Other	10.4	8.2	4.9	6.3	15.9	6.6	6.2	6.6
Management	20.2	16.5	17.1	14.5	9.5	12.7	11.9	14.6
Reference	25.0	25.8	22.0	33.3	28.5	11.8	15.3	21.4
Special Programs	0.8	--	--	--	--	32.4	8.5	5.4
Training	5.6	6.2	7.3	8.3	6.3	5.1	5.1	6.0
	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

HAWAII STATE LIBRARY

SUMMARY OF BOOK AND REFERENCE UNITS
Nov. 18, 19 & 20; Dec. 6, 7 & 8, 1976

TABLE 36

	Serials	Audio Visual	Circulation	Circulation and Special Material Subtotal	Book and Reference Subtotal	All Unit Total
	%	%	%	%	%	%
Collection development	6.7	8.1	---	3.0	19.0	11.8
Collection maintenance	17.3	18.6	---	7.7	19.5	14.1
Circulation	38.0	29.1	81.2	61.4	5.5	31.1
Other	10.7	3.5	5.1	6.4	8.6	7.6
Management	13.3	5.8	8.0	9.1	14.6	12.1
Reference	10.7	32.6	4.4	10.4	21.4	16.3
Special programs	1.3	---	---	0.4	5.4	3.0
Training	2.0	2.3	1.3	1.6	6.0	4.0
	100.0	100.0	100.0	100.0	100.0	100.0

HAWAII STATE LIBRARY

SUMMARY OF CIRCULATION, SPECIAL MATERIAL, BOOK AND REFERENCE UNITS

NOV. 18, 19 & 20; DEC. 6, 7, & 8, 1976

6. Observations of Staff in Other Libraries

While the number of observations made at the other libraries was too small for statistical analysis, some important observations are noted below.

- The staff at the Liliha Library works right in the midst of patrons, with only a short counter separating the staff from library users. This higher level of availability of the staff to Liliha patrons is important, especially since the library is located in a lower income neighborhood where many patrons may not be skilled at library research.

- The staff at the Kahuku Community/School Library was very responsive to its users, and was particularly aware of the timing of school recess periods and other times when the number of patrons would jump significantly for brief periods.

- The staff at the Hawaii (island) Library in Hilo and at the Kaimuki Library was less available to patrons, partly due to the layout of the circulation desk and offices within the buildings. However, there were desks located in the middle of public areas in both libraries which were manned most of the time.

- The Kahuku Community/School Library was headed by a technician at the time of our visit because no professional librarian had been found to assume this responsibility. Upon inquiry, we found that this problem existed in other remote areas also.

Recommendation #30

The individual libraries should be staffed with technicians and clerical personnel appropriate to the special needs of each neighborhood and community. The libraries should not have fixed manpower levels and mixes established by formulas insensitive to local needs.

Recommendation #31

Libraries should be headed by professionals where possible. If necessary, professionals should be transferred, or asked to commute to libraries where professional staff is needed.

B. Other Public Service Staff Utilization and Availability Measures

The activities of the public service staff by library unit were also measured according to procedures recommended by De Prospo and his associates.

1. Personnel Utilization and Availability

In the course of the work sampling, the following information was collected:

- The number of staff assigned to each public service unit during each observation round;
- The number of staff available on the floor to serve the public;
- The number of staff members who were assisting patrons at the time each observation was made.

No differentiation was made in the measurement between librarians, technicians, and clerical workers. The results of this analysis are shown in Table 35 on the following page.

Findings and Recommendations

- The highest availability of public service staff as a percent of all persons assigned to the State Library units occurred in the Federal Documents, and the Business, Science, and Technology units.
- The lowest availability of public service staff as a percent of all persons assigned to the State Library units occurred in the Social Science and Philosophy and Children's and Young Adult units.

TABLE 35

Name of Unit	Total Number of Persons Observed		Percent of Assigned		Percent of Available and Assisting	
Hawaii and Pacific	Assigned	119				
	Available	12	10.1%	17.7%	57.1%	100.0%
	Assisting	9	7.6%		42.9%	
Fine Arts and Audio Visual	Assigned	145				
	Available	20	13.8%	26.9%	51.3%	100.0%
	Assisting	19	13.1%		48.7%	
Social Science and Philosophy	Assigned	116				
	Available	2	1.7%	6.9%	25.0%	100.0%
	Assisting	6	5.2%		75.0%	
Children's and Young Adult	Assigned	73				
	Available	2	2.7%	9.5%	28.6%	100.0%
	Assisting	5	6.8%		71.4%	
Literature, Language & History	Assigned	84				
	Available	14	16.7%	28.6%	58.3%	100.0%
	Assisting	10	11.9%		41.7%	
Federal Documents Business, Science & Technology	Assigned	118				
	Available	29	24.6%	34.8%	70.7%	100.0%
	Assisting	12	10.2%		29.3%	
Periodicals	Assigned	106				
	Available	18	17.0%	19.2%	81.9%	100.0%
	Assisting	4	2.2%		18.1%	
Total for State Library	Assigned	761				
	Available	97	12.7%	21.2%	60.0%	100.0%
	Assisting	65	8.5%		40.0%	

(9 a.m. to 5 p.m. weekdays -- Nov. 18 & 19; Dec. 6,7, & 8, 1976)

PUBLIC SERVICE PERSONNEL UTILIZATION AND AVAILABILITY

HAWAII STATE LIBRARY

- Overall, the availability of public service staff as a percent of all persons assigned to the State Library is relatively high (21.2%, or one out of every five persons assigned to the units).
- Of staff personnel available to the public, 40.0% or 2 out of 5, were assisting patrons at the time of our observations.
- The highest percent of assigned staff assisting patrons occurred in the periodicals unit.
- The proportion of staff available and assisting varied widely from unit to unit, indicating significant variations from unit to unit in public assistance.

Recommendation #32

Consideration should be given to putting the staff available in the library in closer proximity to each other where possible, so that they can provide service more effectively. This is effective at the Fine Arts and Social Sciences and Philosophy desks, and could be effected in such locations as the desks of Federal Documents and Business, Science and Technology. As previously recommended, units can also be consolidated to make service to patrons more efficient.

Recommendation #33

In addition to implementation of staff sharing and unit consolidation, seek other ways to make the time spent with patrons as effective as possible and bring library resources to bear on patrons' needs, so that the time spent with patrons is a true indicator of library performance in relation to user needs.

2. Patterns of Information Requests

To measure information service to patrons, we used a modification of a data collection procedure developed by Altman and associates.[1] Because we did not use other methodologies to collect data about persons entering the libraries, we modified De Prospo's "Patterns of Information Requests" collection procedure slightly so that it would also include some information about patrons.

We conducted a comprehensive, Statewide telephone survey to obtain detailed data about user characteristics (see Volume II of this study: A Survey of Residents In Relation To Public Library Use). We recommend that such a survey be taken periodically in order to:

1. Obtain user data at the library level;
2. Secure up-to-date information on library usage;
3. Survey user opinions on services provided.

The change that was made in the data collection form was to identify adult patrons making information requests by category, as follows:

Personal use;
Business purpose;
Federal Government purpose;
State Government purpose;
County Government purpose.

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[1] Altman et. al., Op. Cit.

The remainder of the form was completed according to the instructions developed by De Prospo and his associates:

- Separate forms were used by each person in each unit;
- Each horizontal row represented one question asked of a staff member by one patron, and the hour in which the question was asked was recorded (for example, a question asked at 3:30 was recorded as 3);
- Questions posed were recorded by source of question (in person, by telephone, or by mail);
- Questioners were identified as adult (with their status recorded by letter symbols as noted above), student, or another library;
- Type of information desired, classified as:

  "Directional" - location of materials or facilities within the library, library hours, library policies, etc.;

  "Bibliographical" - specific author or title verfication request;

  "Topical" - request for material on a specific subject;

  "Factual" - request for specific information other than "directional;"

- Sources used to answer were categorized as:
  - card catalogue
  - reference collection
  - circulating collection
  - periodical index
  - periodical
  - vertical file
  - other source
  - central library
  - other library
  - other agency
  - not answered

- Questions referred to other sources were identified as "other library," "other department" or "other agency."

Table 36 summarizes the data gathered during the study by the staff of the State Library, by unit and type of question. Since the State Library was open 54 hours (or 3,240 minutes) during the study, it has been calculated that questions were asked at the rate of 1.96 per minute, and since questions were sometimes asked too fast for the staff to list them on the forms, it is estimated that more than two questions on the average were asked every minute that the State Library was open during the study. Table 36 also shows that 39.6% of all questions, or nearly two out of every five questions, are answered by either the circulation or the language, literature and history desks. A high proportion of the questions at these two desks were of a directional or factual nature--94.3% of circulation questions were directional or factual; while 61.1% of language, literature, and history questions were directional or factual.

Table 37 shows types of questions asked by library surveyed. Of particular note in this table is the considerable proportion of inquiries in each library except Liliha that involved directional information. Liliha Library is noted for its system of directional signs and symbols, and features an unobstructed view of the entire library from its entrance.

TABLE 36

	Type of Question							
Department	Directional	Biblio-graphic	Topical	Factual	Sub Total	Incom-plete*	Total	% of Library Total
Hawaii & Pacific	94	164	202	120	580	37	617	9.69
Language, Literature & History	437	181	269	270	1157	68	1225	19.25
Circulation	810	27	31	155	1023	271	1294	20.33
Serials	130	495	11	79	715	20	735	11.54
Fine Arts & Sociology	162	164	143	46	515	29	544	8.55
Audio Visual	54	360	164	28	606	25	631	9.91
Business, Science & Technical	113	97	160	173	543	32	575	9.03
Federal Documents	16	34	11	23	84	12	96	1.51
Young Adult	16	11	5	1	33	5	38	.60
Edna Allyn Room	172	42	269	127	610	**	610	9.58
	2004	1575	1265	1022	5866	499	6365	100.00
% by Type of Question	34.2%	2.68%	21.6%	17.4%	100.0%			

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* Incomplete questions.

** No. incomplete questions because figures were taken straight from survey sheets without reconciling Questions Posed to Type of Question. See Patterns of Information Requests: Form II.

PATTERNS OF INFORMATION REQUESTS SUMMARY FOR THE HAWAII STATE LIBRARY

TABLE 37

	Hawaii State Library	Kaimuki Regional Library	Hilo Regional Library	Liliha Library	Kahuku Community-School Library
directional	33 %	45 %	39 %	17 %	26 %
factual	16	22	17	39	35
bibliographical	30	20	27	16	9
topical	21	12	22	28	30
Total number of requests sampled:	4,676	573	343	194	153

Source: Library measurements

NATURE OF PATRON INFORMATION REQUESTS
AT SELECTED HAWAII LIBRARIES

C. Proposed Changes in Procedures

The manpower survey and other public service staff measurements have provided insights into the use of staff time which indicate that the manpower performance at the Hawaii State Library can be improved substantially through several relatively simple procedural changes. Because most of these proposed changes require little or no capital investment, they are highly economical. However, since most changes that we propose mean changes in present practices which involve patrons and some relate to modifying present services levels now offered library patrons, the decision to effect these changes may not be able to be made at the operating level within the Office of Library Services.

The data show that the libraries are manpower intensive. There is a high proportion of salary and wage input in the delivery of library services (see Table 21, earlier in this report). Where industries and businesses have been manpower intensive (using a lot of labor in their production), managers have sought methods to improve the performance of their personnel through better methods and procedures, thereby generally accomplishing their objectives without having to ask their employees to work harder. The self-service methods developed in the supermarkets in the last thirty years provide typical examples of this, such as prepackaged meats and improvements in check-out procedures.

The thought of increasing self service in libraries or reducing the contact of librarians with patrons is likely to be disagreeable to professional librarians, who have been trained to provide high service levels to their patrons. However, funds for public services such as libraries are becoming less available, and this change means that many government agencies, including libraries, must seek opportunities to reduce their manpower requirements.

The alternative to reducing manpower in libraries through different procedures and other improvements is to reduce the purchase of materials. This has been the general practice in the State of Hawaii library system in recent years (the effective level of expenditure for books purchased in 1975-1976 was 81.4% of the level in 1971-1972--see Table 21, earlier in this report). A reduction in books, the primary resource of libraries, is generally even more disagreeable to librarians than making changes in methods of service to the public.

1. Overdue Procedures

Overdue procedures comprise the largest single work element (34.7% of all circulation unit time) in the largest unit (26.1% of the personnel) in the State Library. This means that approximately 9% of all personnel time is devoted to overdue procedures. This function has increased substantially at the State Library since fines were eliminated in May of 1973, as demonstrated by the statistics in Table 38.

These data show that while circulation has dropped 9% between FY 1971/1972 and FY 1975/1976 (the year before fines were dropped), the number of first notices for overdue books has increased 395%, and second notices have increased 205%. Withdrawals, which are due to books not being returned by patrons, increased by 205% during the same period. Not shown in these figures is the serious problem posed by large numbers of books not being available because of patrons keeping them out beyond the allowed loan period.

Circulation statistics show that overdue notices are high at other libraries also (as shown in Table 39). However, we did not compare the increase in overdue notices before and after fines were ceased at other libraries. The purpose of abolishing

TABLE 38

due dates	July 1971 to June 1972	July 1972 to June 1973*	July 1973 to June 1974	July 1974 to June 1975	July 1975 to June 1976
circulation	493,221	459,668	436,682	405,304	448,209
first notices (% of circulation)	14,906 (3.0%)	15,218 (3.3%)	46,675 (10.7%)	49,708 (12.2%)	58,871 (13.1%)
second notices (% of circulation)	7,245 (1.5%)	7,031 (1.5%)	9,712 (2.2%)	14,668 (2.9%)	14,877 (3.3%)
withdrawals (% of circulation)	4,782 (1.0%)	6,312 (1.4%)	6,589 (1.5%)	8,045 (2.0%)	9,824 (2.2%)

* Fines ceased as of May 23, 1973

HAWAII STATE LIBRARY

CIRCULATION STATISTICS IN NUMBER OF BOOKS

TABLE 39

	Percent of Circulation*		
	first notices	second notices	withdrawals
	%	%	%
State Library (1975-1976 FY)	13.1	3.3	2.2
Kaimuki (1/2-1/29/76)	10.4	2.9	1.2
Hilo (9/23-10/21/76)	12.1	3.5	?
Liliha (12/4-12/26/76)	6.9	1.9	.9
Kahuku (3/11-5/6/76)	11.1	7.2	?

* Actual books per charge slip at State Library.

HAWAII STATE LIBRARY

CIRCULATION STATISTICS OF LIBRARIES COMPARED fines was to reduce the work load in the State of Hawaii library system.[1] Instead, stopping fines has increased the burden on personnel in the libraries.

The results of following up on books missing from a sample of 516 book titles selected from the shelf list is shown in Table 40. This table shows that of the 161 books missing from the shelves at the time of the survey, 94 or 58.4% were returned. However, 67 or 13.0% of the 516 books in the shelf list sample were still missing after six months.

There are several aspects of the present overdue procedures which need to be examined in considering alternative methods of getting books back from patrons on time:

1. The study which served as the basis for the cessation of fines in 1973 envisioned simply charging patrons a flat $5.00 fee for books not returned within six months. The first and second overdue notice system was to be abolished under the plan proposed.[2]

2. However, the first and second overdue notice system was not eliminated, and the system continues to function practically as it did before fines were dropped, except that fines are calculated but no income is received from fines.

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[1] James G. Igoe, Realignment of Staff Time. Memo to Dr. Shiro Amioka, Supt. Dept. of Education, Honolulu, April 30, 1973.

[2] James G. Igoe, State Librarian, Library Fines. Memo to Mr. Koichi H. Tokushige, Assistant Superintendent for Business Services, Honolulu, Hawaii, November 24, 1972.

TABLE 40

	number	Percent of total
number of books in Random Selection*	516	100.0
number of books available for survey	-355	- 68.8
number of books missing for survey	161	31.2
number of books ultimately returned in six months	- 94	- 18.2
number of books still not returned at end of six months	67	13.0

* see Table 4

RESULTS OF SIX MONTHS FOLLOW-UP OF OVERDUE

BOOKS FROM THOSE NOT AVAILABLE AT TIME OF SURVEY

3. Present overdue procedures are elaborate and time consuming. For example, in the interest of not offending patrons, thorough searches of the stacks are made each time before overdue notices are sent out. Also, when patrons are ultimately billed for books still out after the first notice, the circulation staff meticulously looks up and bills the patron for the actual cost of the book.

4. Fines which amount to between $80,000 and $99,000 in revenue per year, cost approximately $120,000 to collect in 1972.[1]

5. Overdue collection practices of business and government (IRS) have shown that thoughtfully worded but firm reminders are effective.

Recommendation #34

Revise and simplify the overdue procedure at State of Hawaii libraries, starting with the following charge out procedure:

(1) Revise the charge out form to take an imprint of the patron's driver's license or credit card for clarity and to give a more official character to the borrowing of library books. (Children can use school I.D. cards if available.)

(2) The fact that patrons will be billed for materials not returned and the cost of materials by type of material should be

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[1] James G. Igoe, State Librarian, Additional Information on Fines Collected. Memo to Mr. Koichi H. Tokushige, Assistant Superintendent for Business Services; Honolulu, Hawaii, November 27, 1972.

advertised at the time books are charged out.[1] *Current prices of materials should be included in the message.*

(3) An attractive, illustrated bookmark insert on colorful stock should be put in each book charged out, which would:

- *advise the patron of the serious effect of overdue books (estimated at 10% of the collection) on his or her own ability to get books from the library;*
- *appeal to the patron to return the book on time as a courtesy to other readers;*
- *state the cost of replacement of books on the average by type of book;*
- *inform the patron that they will be billed for the book at this average cost if the book is not returned to the library. If used as a bookmark (and most readers we believe would use it), this insert would serve as a constant reminder of the need for returning the book on time.*

(4) The first notice to patrons of books being overdue should be a formal invoice but should contain a footnote to indicate that they may disregard the invoice if the book has been returned and say "Thank you for your patronage;"

(5) The invoice amount should be the average cost of books of the type not returned;

(6) A second notice, if needed, should be a copy of the formal invoice and be marked "Second Invoice." It should be sent out with a more firm but still pleasant request for return of the overdue

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[1] In retailing, these types of advertising and communication are called "point-of-sale" materials, and are highly cost-effective.

material if it is not returned within an appropriate length of time;[1]

(7) *Searches of the shelves for books which may have been returned without being recorded as returned should be made only when patrons advise the library that the books have been returned;*

(8) *If it is decided that fines are to be included as a further inducement to prompt return of books and other materials, a system with the following characteristics should be used rather than a fining system based on the number of days a book is late in being returned:*

- *first week, no charge;*
- *thereafter, a charge of twenty-five cents (25¢) per week or any part of a week;*
- *maximum fine to be the cost of the average book of that type.*

This improved procedure as outlined should return more books on time, decrease the length of time books are overdue, and minimize withdrawals due to unreturned books. However, this recommendation's most important advantage is the opportunity it offers to free circulation personnel to carry out the increased interloan work that is anticipated with the installation of BIBLIOS this year.

At least two and possibly three circulation personnel could be made available at the State Library to handle intrasystem loans through this procedural change. Also, corresponding time could be made available at other libraries through this change to handle the expected increase in their work loads due to a greater demand for intrasystem loans.

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[1] The timing of the first and second notice relative to the due date has been researched by others and should be set by qualified librarians. Our opinion is that this should be done promptly to keep the books on the shelves of the library, especially when book material is scarce, although delaying overdue notices will reduce the number of notices which need to be sent to patrons.

2. Informational and Reference Services

Time spent by the public service staff in providing informational and reference services was the second largest block of time spent by State Library staff, as measured in our work sampling. While this percent of time varied from unit to unit within the library, on the average 16.3% of all public service time was spent in informational and reference services at the State Library, and of this time, about half was spent in answering informational and factual questions (see Table 37, earlier in this report). This means that about 8% of all public service personnel time in the State Library is spent in performing work that either could be performed by:

- signs and/or printed material, or
- non-professional staff.

Several proposals have been developed to reduce the time spent at the State Library in answering informational and factual questions, but they were not implemented. The proposals included location of an information center in the main lobby of the State Library, where most of the informational and factual questions are asked. Implementation of these proposals may have been held up in anticipation of obtaining a new facility for the State Library. It appears, however, that construction of this facility is far enough in the future that the implementation of an information center should not wait on its completion.

From our observations, the signs and printed material which provide directions in the State Library and the other State libraries which we visited are inadequate and costly to the libraries involved. New signs should be attractive and illustrated where possible to get the attention of patrons and to answer many questions before they are asked.

Recommendation #35

An information and reference desk should be established in the lobby of the State Library:

- *It should be staffed by library technicians who can answer most informational and factual questions and many bibliographical questions;*
- *The center should include reference books to provide answers to frequently asked questions, and such materials as telephone books for other cities;*
- *The center should answer the telephone for all units in the State Library and pass on to the units only those reference requests and questions that cannot be answered at the information center. Not only is the answering of non-professional calls by professionals wasteful of time, but the constant interruption that these calls bring to the individual units throughout the library is undersirable;*
- *The center should be so designed that professional librarians, who have responsibilities on the ground floor, can easily come to the desk to answer reference questions asked by walk-in patrons and telephone calls that need to be referred to the units.*

The establishment of this information and reference center can help to make professional library time available to perform the professional aspects of intrasystem library loans and to move the State Library more rapidly towards becoming the resource center of the State of Hawaii library system. While the time saved through the establishment of the Information and Reference Center would be felt in all units in the State Library, the principle beneficiaries would be the Circulation and Language, Literature, and History units which are, therefore, the most likely sources of manpower for initial staffing of the center.

Another source of assistance for the expected heavy demand for intrasystem loans can come from the assignment of two of the three present acquisition staff to the effort, since they no longer will need to update the card catalogue and perform related work which will be performed by CPC as part of BIBLIOS. To provide prompt response to intrasystem requests as this load increases, participation by members of all State Library staff may be required temporarily. This process could include:

a. Having intrasystem requests delivered to the units at the State Library at the end of each work day;
b. Requesting each unit to remove from its shelves early the following morning the books which are requested the day before. This can also be done late in the day after receipt of the requests, but hopefully the time freed from answering informational and factual questions would make it possible to accomplish this before servicing the public the next morning;
c. Having the circulation unit personnel pick up the books removed from the shelves for intrasystem loan by 11 A.M. each day, and having them process these books for intraloan delivery within 24 to 28 hours of

the request;

d. Requesting each unit to maintain its own reserve file for books that are not available on the shelves when first requested. The units should also notify the interloan unit that the book is out;

e. Asking the circulation personnel, as a routine, to check their reserve files at each unit before reshelving the books. When they find a newly returned book which matches an intersystem reserve card, they would then remove the card, send a notice to the unit that they are filling the request, and send the book on its way to the branch requesting it.

It is important that the intralibrary loan system function well when BIBLIOS comes on line in order not to discourage use of it by patrons throughout the State.

3. Management Time at the State Library

During our observations management time required 12.1% of all person hours observed - a percentage greater than that for business and industry generally. This time element included such work as attending management meetings, reading Office of Library Services and Department of Education memos and material, performing industrial relations (writing job descriptions, requests for staff, etc.), communicating with and writing memos to superiors and subordinates, and preparing statistics related to the performance of individual units.

Not included in these figures are the non-public services units (director's office, the acquisition records units, and the acquisitions coordinator's section).

While it is difficult to establish a "norm" for management time for any type of business or industry, the spending of approximately one hour out of each eight hours (.97 hours out of eight on the average throughout the State Library) in management appears high. In our estimation, expenditure of one-half to three-quarters of the time presently being spent now in management would be more reasonable. This would amount to 6% to 9% of all personnel time.

One reason for the high amount of time spent in management at the State Library is the relatively small number of personnel who report to some levels of supervision. As a result of this high degree of compartmentalization, more staff must attend meetings, more staff must be acquainted with personnel matters, and generally more time must be spent in other management functions than would be the case if staff reported to fewer supervisors.

Recommendation #36

The units and functions should be consolidated to minimize management time, and care should be taken to ensure that good communication continues at all levels in the organization. Supervisors should take the time to pass on information to their subordinates. In practice, passing information down through an organization and facilitating feedback tends to strengthen an organization (see next section on Managing Library Resources).

4. Collection Organization, Maintenance and Addition to Collection

The collection organization, maintenance and addition to collection required 14.1% of all personnel time at the State Library during our study. This is a relatively high percent, considering that the Central Processing Center is established to handle this function for all libraries.

This element of time makes up a major part of the hours spent by personnel in the Hawaii and Pacific Room (49.0% of the time of that unit), in Federal Documents (26.8% of the time), and to a less degree in Serials (17.3% of the time of that unit).

Recommendation #37

The technical processing work, especially cataloging, that is now performed in the Hawaii and Pacific Room and the Federal Documents unit can be more efficiently performed by the Central Processing Center and should be assigned to that unit. Such duties should not be performed by professional librarians at the State Library. Due to the need for timeliness in the processing of periodicals, the checking in of serials probably should remain with the periodical unit.

5. Use of Professional Librarians Time

Professional librarians' time is not effectively used at the State Library. The professional librarians see this situation as an indication that more support personnel are needed. We view the imbalance in the ratio of professional personnel to technical and clerical personnel as an indication that too many professional librarians are being assigned to work that could be performed by non-professionals.

Because funds for additional support personnel are not likely to be forthcoming, the State Library needs to make maximum use of its professional staff and make sure non-professional tasks are performed by others.

Recommendation #38

Hiring of new professional librarians for the State library system, should be stopped temporarily, except in the case of special needs. Instead of hiring professional librarians, professionals should be reassigned within the library system to areas where they are critically required--especially libraries that are managed by technicians. New hires should be primarily technical and clerical staff.

Recommendation #39

Job descriptions should be reviewed for the positions affected by our recommendations, and their grades increased or decreased where appropriate. In no case should our recommendations result in the reduction of pay of individuals, although they may result in lower position classifications. We understand that this recommendation is compatible with the personnel policies of the Hawaii Department of Education.

6. Periodical Stacks

The fact that periodical stacks are closed results in a much greater need for staff than would be the case if the stacks were open as they are at the University of Hawaii. Since the staffing for periodicals constitutes 12.5% of the total staff of the State Library, opportunities to reduce this manpower requirement need to be examined.

The argument for closed stacks is based on the need for protecting back issues for reference purposes. However, many of the back issues in the subject areas most frequently used for reference purposes are so mutilated that this argument may no longer be valid.

The alternative to having closed stacks is to purchase magazine articles on microfilm at the end of each year. This eliminates the need for binding back issues and provides reference sources on a more timely basis, since binding of periodicals is frequently delayed and periodicals sent out for binding are not available to patrons for a significant period of time.

Recommendation #40

A change from closed stacks to open stacks should be considered for periodicals in order to reduce manpower needs in this area. Initially, sampling methods should be employed to determine the extent of mutilation and missing issues in bound issues, because the protection now being offered by closed stacks may be unimportant if mutilation and missing issues are common.

7. Work Scheduling

An analysis of the variation in circulation at the State Library by day and week through FY 1975/1976 showed that circulation during peak days was more than two times greater than it was during the average day for the year. Circulation for slack days was two-thirds of the average day's circulation. Circulation during average days of the week compared with the average day for the year as shown in Table 41.

TABLE 41

day	percent of total hours	correction extra hours open %
Monday	96.1	-
Tuesday	89.3	64.9
Wednedsay	103.9	-
Thursday	122.1	88.7
Friday	87.8	-
Saturday	152.5	-
average for year	100.0	

There was also a significant variation from one time of the year to another during FY 1975/1976. The low point was in December. Peaks occurred in the third week of February and the second week of April. A smaller peak occurred in late October to early November, 1975.

Banks, retail stores, and hospitals keep their staffing level closely related to customer demand by hiring scheduled, part time and temporary workers to meet their peak daily, weekly, and seasonal requirements. This minimizes overstaffing problems and is an important cost consideration. These employers have found that many qualified employees prefer to work part time, but do want part time work that they can depend on throughout the year.

Recommendation #41

As an alternative to heavy reliance on permanent, full time staff, State of Hawaii libraries should consider greater use of part time and temporary staff and student assistants to handle anticipated fluctuations in user demand.

IV. MANAGING LIBRARY RESOURCES

This section of our report is intended to respond to that section of the contract which states that the analysis should address management issues, including administrative effectiveness.

The single, state administered system of libraries that exists within the State of Hawaii, Department of Education, Office of Library Services, has no parallel in any other state. Funded by the state to provide all of the services normally available elsewhere through city, county, and state libraries, the system was conceived of as being centralized, streamlined and cost effective when the consolidation of libraries in the four counties was effected soon after Hawaii became a state.[1]

Management, as we have used the term here, refers to all levels of managers in the OLS and not just to the Office of the State Librarian.

A. Library Organization

The Office of Library Services operated under an interim organizational plan from July 1976 through August 1977. A new organization is planned to become effective September 1, 1977 and is scheduled to be effective through January 28, 1978. In our opinion, both plans have their shortcomings.

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[1] Masae Gotanda: The Hawaii State Library System; an Experiment in Statewide Administration. Unpublished, April, 1977.

1. Interim Plan (July 1976 to August 1977)

We agree generally with the comments concerning the new Plan of Organization of the Office of Public Library Services (OPLS), Department of Education as developed by the Management Audit Branch in June 1977, which was further revised on June 23, 1977 and finally recommended to the Board of Education by the Superintendent of Education on August 4, 1977. These revisions were made after a series of meetings across the state with public and school librarians, library technicians who are responsible for outlying libraries, educational offices of the Office of Library Services, and other knowledgeable persons. We are not in a position, however, to comment on the "Recommendation Concerning School Libraries" contained in that same report since school libraries were not within the scope of this study.

We specifically concur with the finding that the actual public service units were too far removed from the State Librarian under the interim organization of July 1976 to August 1977. This included the assignment of the Hawaii State Library to the Library Services Branch, not only locating it organizationally away from the State Librarian, but also grouping it with libraries very different in goals, resources and size. In our examination of the interim organization, (July 1976 - August 1977), we too found the confusion between "regional administration" and "regional librarians" referred to by the MAB report. Our observations indicated that the regional libraries could easily be favored at the expense of the activities of the regional programs, although we found no hard evidence of this happening.

2. Revised OPLS Organization (September 1977 through January 31, 1978)

Under this new plan the Office of Library Services will be called the Office of Public Library Services (OPLS). While the new organization plan, recommended by the MAB Report and the Superintendent of Education, provides several important improvements over the interim plan, such as bringing "all service units two levels closer to the Office of the State Librarian," we feel that it has one serious short-coming.

Our concern with the new organizational plan as adopted at the September 1, 1977 meeting of the Board of Education is the wide span of control assigned to the State Librarian, both in numbers of responsible areas and their diversity of subject and location. Some example of difficulties which frequently develop with too many responsibilities assigned to one person are:

- The supervisor is only able to develop a superficial understanding of a problem and is likely to make decisions on the basis of insufficient facts or without complete analysis of the situation;
- The opportunity for supportive relationships to develop are remote, permitting the superior and subordinate relationship to become ego-deflating;
- The individual(s) in the organization who are closest to the supervisor (physically or by past relationship) or who call for attention receive an unwarranted amount of attention, while persons with more serious problems cannot reach the supervisor.

In the new plan of organization as adopted, eight major responsibility areas were listed directly under the Office of the State Librarian:

- Hawaii State Library;
- Library for the Blind and Physically Handicapped;
- East Oahu Library District;
- West Oahu Library District;
- Hawaii Library District;
- Main Library District;
- Kauai Library District;
- Central Processing Center.

Although planned initially for transfer to other DOE offices, one educational officer position still reports to the Office of the State Librarian:

- Director, Administrative Services Staff;
- Staff Specialist II, Facilities, Security and Maintenance Services, Administrative Services Staff;
- Staff Specialist II, Personnel Services, Administrative Services Staff.

In addition, five staff positions reporting to the State Librarian include:

- Research and Evaluation, Librarians VI;
- Materials Evaluation and Programming, Librarian VI;
- Library Promotional Services, Information Specialist II;
- Administrative Director;
- Secretary V.

The eight major divisions, the one educational officer position and the five staff positions make a total of fourteen people reporting to the State Librarian--far too many individuals for any one person to manage unless they have similar jobs, and are all located in the same room.

However, we do not believe that a position of deputy state librarian, as used in some other state organizations, is an answer to this span of control. A deputy is desirable, however, in some large organizations where day to day operations or certain critical functions may be assigned to the deputy director.

Some of the difficulties that develop with an executive director/deputy director sharing responsibilites are:

- Specific responsibilities are not clearly defined and subordinates do not know to whom to go with a problem;
- Subordinates with problems will go to the person who will be most likely to see the solution their way;
- Both an executive director and deputy director need to know about everything that is going on within an organization if the responsibilities are shared jointly. This is a wasteful and unnecessary duplication of executive time.

While deputy directors can be effective in replacing executive directors when they are away from the job, temporary replacement of the executive director can be accomplished by rotating the executive responsibilities among subordinates on these occasions.

3. Reducing the Span of Control of the OPLS Organization Plan

The question then remains, "How can the Office of the State Librarian be organized to take advantage of the changes recommended by the MAB report and still keep the span of control of the Office of State Librarian within reasonable limits?"

a. Grouping of Districts for Administrative Purposes:

One alternative would be to group the five districts (previously called regions) under an overall district administrator, who would become essentially the operational officer of the Office of Public Library Services. This would centralize communications to and from the districts, provide more opportunity for the districts to work as a true system of libraries, and increase their effectiveness. The problem and concerns of the districts are generally common to all of the districts, and solutions developed within one district could be readily passed onto other districts through the administrator of the districts. With day to day personnel and operating problems being managed by this operating officer, the State Librarian would be in a position to supervise closely the other responsibilities of the Office of the Library Services, assist with policy decisions only related to the divisions, and follow up on the implementation of critical programs.

b. Grouping of Support Services for Administrative Purposes:

Another alternative would be to group most of the support services of the Office of the State Librarian under a single administrator, who would be responsible for those common services which make it possible for the districts to operate cost-effectively. The grouping of the districts under an administrator (see above) would not need to take place if most of the support services reported through an administrator of support services, because the State Librarian could then devote more time to operational problems and less time to support functions.

The Hawaii State Library should not be included in the grouping of support functions. Rather, it should combine the functions of all special libraries, such as the library for the handicapped.

Neither should Research and Evaluation be included in the grouping of support functions, because this function should work closely and directly with the State Librarian as a strong staff support and not through another administrator. It should be renamed Planning and Evaluation Services as it was formerly named (before the 1976 interior plan) and be responsible for the development of new programs and for the instruments of library evaluation.

Recommendation #42

The decision to move toward grouping operational districts or grouping the support functions (as discussed above) to reduce the span of control of the Office of Library Services should depend on the capability, background, and experience of the next State Librarian. If the person selected for this position has a strong background in the operations of libraries, then that person should manage the districts directly and be supported, and the span *of control reduced, through an administrator of support services as described. If the next State Librarian has a strong background in support services, then the divisions should report to the State Librarian through a district administrator to relieve the span of control of the Office of the State Librarian.*

Recommendation #43

During the interim period before the new State Librarian is selected and is able to take charge, the districts should be grouped together administratively and this reponsibility should be temporarily assigned to an administrator of public library divisions. This organizational change would free the temporary State Librarian to work closely with the Hawaii State Library (renamed State Resource Center) and support functions to effect new programs which are needed, such as improved intrasystem loan procedures and implementation of key recommendations discussed in this report and the report of the Legislative Auditor. We see this next period as a time requiring change and decisions, and we believe that the operational aspects of the divisions can be managed well during this time by a district administrator who could coordinate and respond to the needed changes within the districts. Without the administration of divisions being coordinated by someone assigned to this work, we believe that the temporary State Librarian may be unfairly judged during his/her temporary assignemnt.

Recommendation #44

Continue to examine on an annual basis the organizational structure of the State of Hawaii library system for opportunities to strengthen the reporting *relationships and to optimize the number of units reporting to the State Librarian. An annual review is recommended because any time period short of a year is too short to observe the effects of changes made in an organizational structure, and more frequent reviews are unsettling to those affected in the organization.*

Recommendation #45

As new organization plans are considered, opportunities should be sought to reduce the number of responsibility areas reporting to the Office of Library Services to even fewer than that recommended above. Ideally, there would be four responsibility areas reporting to the State Librarian which would encompass all library services: (1) public library operations; (2) reference and special libraries; (3) administrative services including central processing services and book listing services; and (4) planning and evaluation.

4. Other Related Functions and Services

Although the state libraries in other states generally have the single function of developing and managing libraries (29 out of 50), [1] other functions of significance which are included with or within the state library function in other states are:

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[1] Donald B. Simpson, The State Library Agencies - A Survey Project Report 1977. Association of State Library Agencies, a division of the American Library Association: Chicago, 1977.

- information services;
- museums;
- historical preservation;
- archives;
- culture.

Library services other than a state library resource center, public libraries, and school libraries which are included in library systems in other states include:

- legislative reference;
- judicial libraries;
- medical libraries;
- college and university libraries.

Other functions that are generally common to most state libraries are:

- library planning and coordination;
- interlibrary cooperation;
- continuing education;
- administration of Federal funds for libraries.

In some states, the libraries are under the library department of the state, while one state library reports to the Community Affairs and Economic Development Department.

Recommendation #46

Consideration should be given to including the State Archives and the Legislative Reference Bureau within the responsibility of the State of Hawaii Library System and specifically within the Hawaii State Library, for cost-effectiveness and to avoid duplication of services. Presently the Hawaii State Library provides many of the functions and services of the State Archives and the Legislative Reference Bureau and performs their functions and services within one or two hundred yards of them. The State Archives presently are under the State Department of Budget and Finance, while the Legislative Reference Bureau is a function of the Hawaii State Legislature and is a year-round activity. John Humphry, consultant, recommended in March 1975 that the Hawaiian Historical collection program "be coordinated with the State Archives." [1]

Recommendation #47

The State of Hawaii Library should consider expanding its role as the first place people can turn for direction to obtain any information and services they need. The State library system is the logical place for the public to turn to for information of all types because public libraries are located in each community, because public libraries are already looked to for recorded information, and because the public library can be a community's information center with little more than some additional staff training and an administrative commitment accompanied by philosophical and

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[1] Humphry, Op. Cit.

verbal support.[1]

Recommendation #48

If the full range of reference and informational materials available at other government supported libraries in the state do not become available to the public through the intersystem loan procedures recommended in an earlier section of this report, consolidation of these libraries within the State of Hawaii library system should be considered. However, as long as these special purpose libraries, such as the State Supreme Court Library, cooperate with the State system, they probably will serve their respective areas best by reporting directly to the organizations they are presently assigned to.

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[1] Norman L. Maas, The Public Library as Community Information Center. American Library Association Program on Information and Referral Service: Detroit, June 1977.

B. Tying the Organization Together

Since the State Librarian is selected by the Board of Education to run the entire OLS and since the State Librarian cannot do all the work alone, large blocks of duties must be delegated to subordinates. Each of these key persons in turn delegates work to his or her subordinates, and the process of delegation continues until all the work, both administrative and operational, is assigned to library employees who have the time and ability to perform the work well.

Each time work is delegated, it should forge a new link in the chain of command. No member of the organization should lack a connection to the State Librarian through one of these links.

It should be noted that "although there are numerous supplementary means for coordinating action (as noted under the discussion of 'System 4' type of management), the process of delegating provides the skeleton of the formal organization structure." [1] While the link of delegation seems to be grasped in the OLS, the actions which follow are not fully understood or perhaps are misunderstood. Every time a manager delegates work to a subordinate, three actions should be either expressed or implied:

1. Duties are assigned, indicating what work the subordinate is asked to do;

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[1] William H. Newman, Charles E. Summer, E. Kirby Warren, The Process of Management: Concepts, Behavior and Practice, 2nd Edition. Prentice-Hall, Inc.: Englewood Cliffs, New Jersey, 1976.

2. Authority is granted, with the transfer of certain rights such as to direct the work of others, to use raw materials, to represent the organization, etc.;
3. An obligation[1] is created, that is, a subordinate takes on the obligation to the person delegating the authority to complete the job or see that it is completed as assigned.

While we found that duties, authority, and obligation were not always clearly understood within the OLS, both the clear delegation of authority to employees and the reciprocal sense of obligation on the part of the employees were most notably lacking in critical areas within the organization.

Personal dependability needs to be reestablished throughout the organization so that the State Librarian and other managers will know the job will be done when the assignment is delegated. What is not understood, we believe, is that an obligation cannot be delegated. Getting someone else to assume the duty does not break the link in the chain of obligation to complete the work.

Recommendation #49

The new State Librarian should seek to tie the organization together through true delegation of authority, and should follow up closely to see that corresponding obligations are performed.

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[1] The word "responsibility" is avoided here because it means different things to different people. However, "accountability" could be a synonym here for "obligation."

When a new executive is selected, these problems are likely to be reduced temporarily. However, the executive should take whatever time is required from the very beginning of his/her administration to see that each job is carried out as delegated. The DOE management and Board of Education should be cognizant of this problem and be prepared to back up the new State Librarian's efforts to reinforce the chain of command and bind the departments, divisions, branches and units of OLS into a unified organization.

C. Management Training

The mobilization of library resources--personnel, materials, and facilities--into a successful ongoing library system is dependent on a full understanding of the fundamentals of supervision (e.g., organizing, planning, leading, and controlling), and the conceptual framework of effecting sound management practices. Some of these principles were described in the preceding paragraphs of this section of our report.

We believe that these fundamentals can be best learned by the management team of the OLS through a series of management training meetings developed and carried out by a recognized management consultant. Initial instruction should be given to the top managers, and they in turn would train the next level of supervision who would then train the next lower level of supervision, and so on. The consultant should be present at each of these sessions and should work directly with the administrators to develop the leadership, management and decision-making abilities needed in the Office of Library Services. In this way, everyone in the OLS's organization would be in a position to follow the same management process, and each supervisor would have been informed by the person to whom he/she reports.

Some of the types of questions which would be answered through such training sessions include:

- What levels of authority are there and how is authority delegated?
- Where should decisions be made and how should decision information be disseminated?
- What responsibility does a subordinate have to carry out a decision, and how can the decision be appealed?

The process of review and implementation of this report, and especially the installation of the measurement system recommended herein, can provide an excellent opportunity for group discussions and increased understanding leading to the establishment of goals for units and for the whole organization, so that all OLS employees can work together for a common purpose.

If this study report is handed down to the library units without adequate review, discussion and input from those who will be living with its recommendatons, its success will be limited. Only if the procedures are well understood and the goals and measures accepted by the OLS staff can they be effective in providing the opportunity for improving the State of Hawaii library system.

Recommendation #50

Institute a management training program led by a management consultant and beginning with the fundamentals of supervision, as soon as practical.

Recommendation #51

Implement the measures of effectiveness and related goals recommended in the study report by reviewing and discussing them with staff and obtaining staff suggestions, rather than simply ordering their installation without staff input.